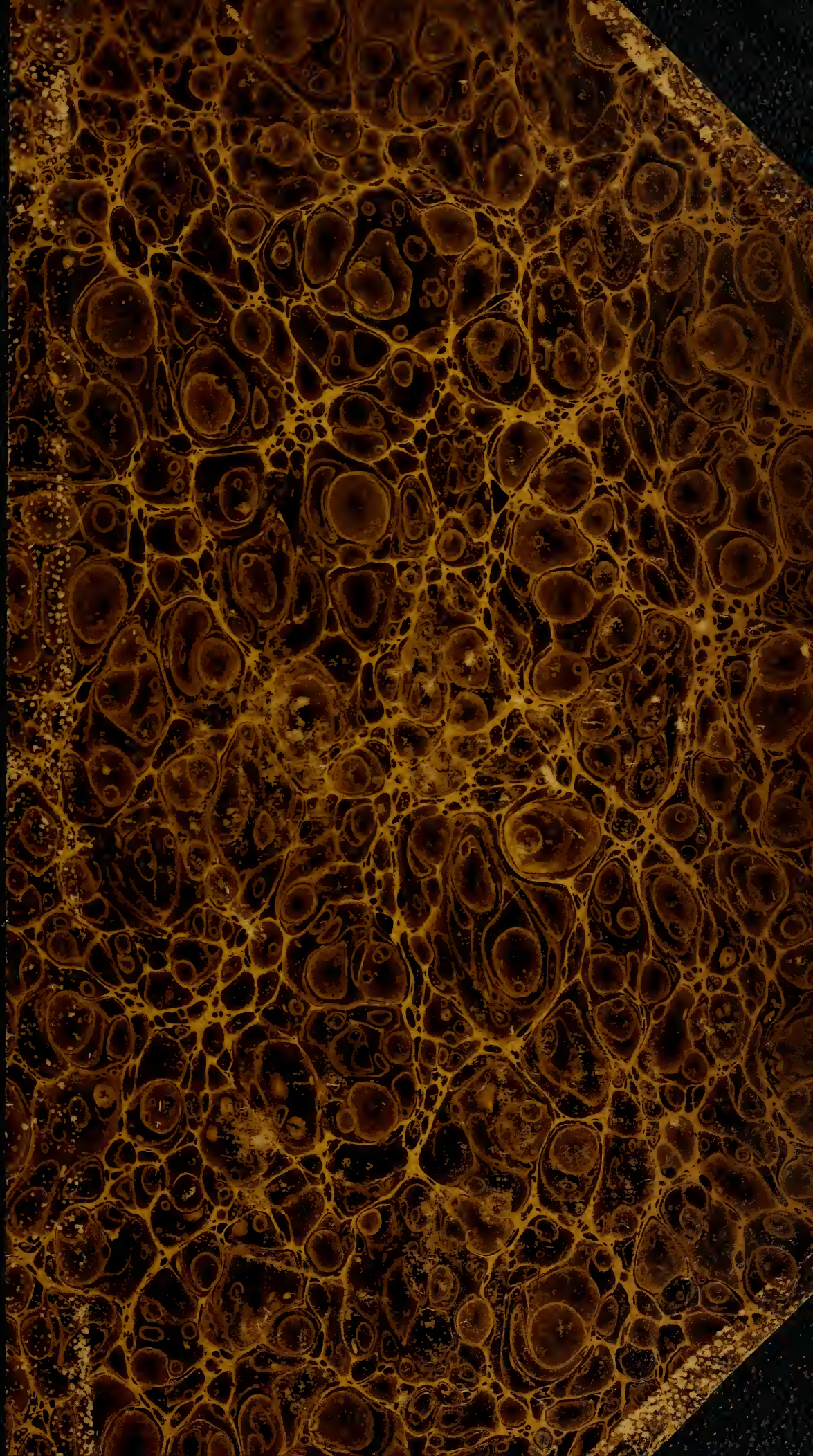




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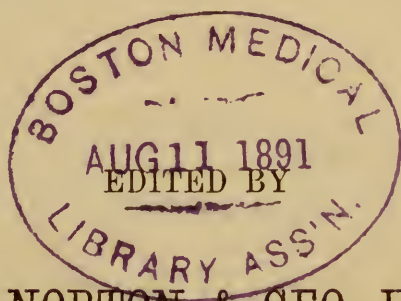








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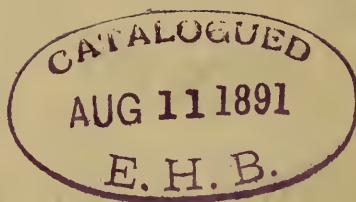
FRANK H. NORTON & GEO. H. PERINE.

VOLS. I—II.

1858—9.

NEW YORK:  
GEO. H. PERINE, PUBLISHER AND PROPRIETOR,  
OFFICE, No. 640 BROADWAY.

LONDON: TRÜBNER & CO.  
1859.



# Index to New York Dental Journal.

VOLS. I—II, 1858–59.

NOTE.—As a discrepancy owing to an error of our former printer occurs in the paging of these volumes, we shall designate all the pages for July and October, 1858, by the letter (*a*.) and all following by the letter (*b*.) As, 1 *a*, 150 *b*.

We furnish an index for the first six numbers, with title page ; and would advise our subscribers to bind those numbers in one volume ; hereafter we shall publish an index and title page at the end of every four numbers, beginning with January and ending with October.—Eds.

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# THE New-York DENTAL JOURNAL.

JULY, 1858.

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## PREFATORY.

In presenting to the Dental Profession the first number of the "NEW YORK DENTAL JOURNAL," we desire to say a few words explanatory of our views and aims, and to lay before our readers our intended course, more fully and clearly than we could comprise within our circular. An interval of some length having elapsed since the publication of any Dental Periodical in New York; and it being obvious to us that such a Periodical was eminently required at the present time by the profession of our immediate vicinity, we determined to undertake the task. We did not however blind ourselves to the fact that there already exist a number of Dental Periodicals, we only said, "we will enter upon a new course—take a different standard," and relying upon the intention we have spread our wings and leaped forward into the atmosphere of public opinion.

It is our opinion that the Dental Journalist who rightly pursues his profession, should keep before him two rules to govern his line of conduct as a publisher; first,—to place before his readers an ample and correct resumé of the progress of the profession

in the present; second,—to endeavor as far as in his power lies, to acquaint his readers with all that has transpired in the *past*, which is calculated to interest and instruct the Dentist, and which may not be generally known. The first of these rules has been generally followed by the Dental Periodicals of this country, the second has been ignored; we propose to be guided by both. The present number in its arrangement therefore, may be taken as an index to our intentions in the future. Our classification includes *first* the HISTORICAL. The little that has been published in a collected form relative to the History of Dentistry, leaves us a wide field for future operations, and careful research which we shall not fail to glean thoroughly. *Second*, the HISTORICAL is properly followed by the BIOGRAPHICAL. In this division we shall be guided by no absolute rule, chronological or otherwise, but shall make our selection of subjects as they may present themselves to us, hoping to furnish in time, carefully written lives of all those who have added permanent and valuable information to the knowledge of the Profession. *Third*, the BIBLIOGRAPHICAL; this department we cannot expect to make particularly interesting, but we hope to make it useful. Every Dentist should be thoroughly acquainted with the literature of his profession, and in presenting a careful and complete list of all the works which have been published upon Dentistry, with short notices of their authors, we think we are performing a labor tending towards much good, although laborious and unsatisfactory to the compiler; this portion of our Journal will not, however, occupy much room, and those who do not care for the subject can readily skip it, as it is intended more for reference than present reading. Besides the articles above named, we shall lay before our readers selections and translations from the principal Dental Periodicals the world over. We shall also be happy to receive communications from the

Profession on all subjects interesting to that body, claiming the right of selection, and publishing the name of the communicator when desired. A portion of the JOURNAL will also be reserved for short miscellaneous articles relating in any way to Dentistry, remarkable cases of early Dentition, Dental Wit, and such other light matter as we can cut from newspapers or become acquainted with personally. Finally, we propose to take *completeness* as our end in view, and hope to make the "DENTAL JOURNAL" a standard authority both here and abroad. We would also solicit the patronage of the profession, either by subscriptions, communications, advertisements or kind words; all will be gratefully received; and here we take the opportunity of thanking those who have so liberally come forward at the outset to aid our undertaking, and assure them that we shall endeavor not to disappoint their legitimate expectations. For terms, rates of advertising and other information we refer our readers to the last page of our cover. And in conclusion, let those who think we promise more than we can perform within the limits we have set ourselves, suspend their decision until we shall have established ourselves firmly, and shall have time to fulfil our promises, if we have the ability and inclination; we think the latter will not be found wanting.

A GLANCE AT THE HISTORY AND PROGRESS OF DENTAL SCIENCE,  
FROM THE EARLIEST AGES TO THE PRESENT TIME.

To write a history is always a tedious, laborious, and often a thankless task; to write the history of a science like Dentistry, which we may say originated almost at the cradle of the human race, is especially laborious and tedious, but we hope will not be thankless. In endeavoring to obtain some insight into the past history of Dentistry we could not avoid observing how little really exists in compact form calculated to aid us in our research; and it is this difficulty on our part which appeals to us to endeavor as far as possible, and as far as can be compassed within the limits of our Journal, to fill this void. We have reason to believe after careful search that there really exists no complete history of Dentistry to a late period in the form of a separate publication; and here in America, where Dentistry has advanced itself to a higher position than in any other part of the world, here where are found the most prolific writers upon almost any subject, we have found less matter concerning the science than among either the German or French authors. And this fact which would not appear strange in connection with almost any other subject, for we should take into consideration the youth of our country in all that relates to literature, and especially to those works intended for reference, does appear strange when we reflect that Americans have made Dentistry more of a speciality than any other nation, have paid more attention to its every branch, and have finally become acknowledged as the best practitioners of the world. One would suppose then that those interested in the profession would have sought to keep some record of its progress before all trace of it should have been blotted out, and that abler hands than ours would have devoted their pens to chroni-

cling its history. Observing the necessity, however, for some such work, and having perhaps greater facilities for research than many others, we shall from time to time place before our readers such facts as we can collect, and in such convenient and readable shape, as we can best put them.

We have said that the origin of Denistry can be referred to the cradle of the human race.

Man, ever since the fall, has been subject to disease, and that necessity which has ever been the mother of invention, must have early taught him to use some means for its alleviation or cure; rough and uncouth perhaps, but still in a measure answering his purpose. Thus we find ancient writers referring to the practice of Dentistry, as being coeval with the birth of medicine. In the first period of existence when man afflicted by disease, discovered that the means for cure lay around him in profusion, in the herbs and plants that glistened in their fresh green beauty under the sunlight, he divided the pains and sickness that affected different organs and members of the body into different classes, not knowing that many disorders perhaps originated in the same locality. And thus men began to study the simple *Materia Medica* that lay spread around them, and each one devoted his time to one class of disease, having its existence in one portion of the body. Thus there sprung up Oculists, and Aurists, and thus Dentists. But inasmuch as the teeth were not so subject to affection as other organs, the Dentists were neither so plenty in those days, nor so elevated in repute, as since; and as the means for curing diseases of the teeth were far more limited than those which other physicians could use in their departments, indeed as they knew little beyond the manner of extracting teeth, and that harshly and painfully, we may imagine that they could not be otherwise than unpopular. Men did not like to have a useful and ornamental member of their bodies torn

rudely from its socket, and though they admitted its necessity, since no means for cure existed, still they could not feel grateful to the operator. Thus Dentistry languished and progressed little until later. It is not to be supposed however that the practitioners of those days, recommended the extraction of teeth in all cases of pain. Indeed we are informed by contemporary writers that the most stringent rules were established in relation to this matter, and that in no case was extraction resorted to, except where an absolute and apparent necessity existed. Many Dentists refused to draw teeth unless they were so loosened that the operation could be performed with the fingers, when that was impossible, they loosened the tooth by moving it backwards and forwards in its socket until it could be extracted with ease, thus in their ignorance rendering the operation much more painful and even dangerous than forcible and sudden extraction would have been. The instruments of the time appear to have been clumsy and illy fitted to the delicate labor they had to perform. Among the strange frescoes and bas-reliefs found at Thebes and Memphis, are many representing the daily labors, the trades and professions of the ancient Egyptians; one of these, a copy of which we have seen, portrays a dentist operating upon a patient; in this painting we noticed especially the size and primitive appearance of the instrument, (the forceps), and also the expression of deep pain noticeable in every limb as well as in the features of the person undergoing the operation. Although we have said the knowledge of dental science cannot be considered to have greatly advanced among the Egyptians, still there are evidences existing which justify us in giving them credit for a far greater degree of skill than we should suppose could have existed at that early period. It is stated that some of the mummies which have been exhumed from the ruins of ancient Egypt, have presented palpable evidence of hav-

ing their teeth filled with gold and various other substances. We do not however think that implicit reliance should be placed upon the statement that, because these bodies were found with gold and aromatic preparations in the teeth, it follows that filling teeth to preserve them was customary in *life*. The object of the Egyptians in embalming bodies was evidently to arrest decay, and as far as possible to preserve the existing appearance of the corpse. With this end in view, they would naturally use particular care with such members as had already commenced to decay. This appears to us a feasible and probable view of the matter, and we lean towards it the rather that none of the other medicinal operations of the Egyptians are of a nature to induce us to believe that they were far enough advanced in science to undertake the filling of teeth during the vitality of the body. This belief does not however prevent us from giving them their due credit, for knowledge of the chemical properties of the substances they used, a knowledge, which in perfection at least, is now reckoned among the lost arts. But another explanation of the reason of the Egyptians for using gold in the teeth, exists in the well known fact that this metal is constantly discovered in mummies, in various forms, and applied to various uses. Thus have been found gold plates in the mouth and upon various parts of the body, and gilding the organs was a favorite mode of ornamentation, in the embalming of exalted personages. But the general practice of Dentistry does not appear to have been necessitated in those days, by the condition of the teeth ; for certain it is that in the mummies which have been exhumed by the many explorers of those buried cities of the dead, many evidences exist showing the teeth to have been perfectly sound, untouched by disease at the period of death. It is unfortunate that we are thus obliged to rely upon inference for so much of the little knowledge we can gain concern-

ing the state of the science in antiquity, but as we obtain our information principally from the works of Herodotus, who left but little concerning the subject, this is the only data we have. The discoveries which have been made in Egypt have, as we have stated, aided us materially, and it is to the explorations of Belzoni, Wilkinson and others that we owe our few items upon Dentistry among the Egyptians. We shall continue the subject in our second number.

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## LIFE OF JOHN HUNTER, F. R. S.

IN selecting John Hunter as our first subject for biographical notice in the "DENTAL JOURNAL," we have been guided rather by our respect for him as a man of undoubted genius, and of unfailing perseverance in the search after truth, than as one who by his own labors added greatly to the stock of information upon Dental Science. However, his work upon the teeth, though crude and erroneous in many parts, may yet be considered to have opened a world to our sight from which have since been brought rich stores of Knowledge; and although faulty in many cases in his reasoning, and incorrect in his deductions, Hunter will ever be considered as the pioneer of modern Dental Science.

John Hunter was born at a small estate belonging to his family, and situated about eight miles from Glasgow, Scotland, on the 14th February, 1728. His father was a farmer possessed of some little property, two brothers, James and William, followed the profession of medicine, the latter of whom became noted

as an Anatomist, and by unwearied efforts succeeded at length in founding an Anatomical School in London. To this School in 1748 went John Hunter, engaged by his brother to assist in the dissecting room. Here the future master made his first efforts in Anatomy, and was so successful as to receive the praise of his brother, and prophecies of future greatness. He continued to progress so rapidly, that a year saw him established as an under teacher, and guiding the students in their labors. About this period young Hunter commenced the study of Surgery with the celebrated Cheselden, then reputed one of the best Surgeons either in England or on the Continent. With this distinguished man he advanced rapidly in scientific knowledge, and already began to shadow forth the great abilities which displayed themselves in his later years. But although Hunter entered with eagerness into the studies and practice necessary to complete his knowledge of the profession he had adopted, he did not by any means avoid the pleasures and enjoyments usually followed by young men. Fond of company and the delights of the table, he is said to have thrown himself into life with that same energy which characterized his every action. A few years were thus passed in dissipation, his position, for he had charge of furnishing subjects for dissection to his brother's school, was such as would naturally place him among a class of men by no means squeamish or particular in their actions, and Jack Hunter as he was familiarly called, led the van in all their wild frolics; a taste however for literature, and especially the drama, led him often to places of more elevated and sensible amusement, and the position of his brothers, then in the first society of London, shielded him from any contamination likely to do him great or lasting injury. In 1751 Hunter entered as a Surgeon's pupil at St. Bartholomew's, under Pott, then rapidly obtaining a high position in the profession. From the changes

which Pott sought to make in the practice of Surgery, Hunter doubtless learned much to aid him thereafter.

In 1753 Hunter entered as Gentleman Commoner at St. Mary's, Oxford, but the following year we find him again in London, seeking for employment at the Hospitals, and soon entered as surgeon's pupil at St. George's. Here during the summer he devoted himself to the casual practice which presented itself, and in the winter attended more particularly to Anatomy in the dissecting-room. At this period a professional occurrence gave rise to a dispute which commenced twenty-five years later between John Hunter and his brother William, and lasted until the death of the latter. However during this year (1754) Hunter became a partner of his brother in his lectures, and though not fitted for a lecturer himself, he yet frequently occupied the position. At this period, master minds all over Europe, were directing their attention and their labor towards Anatomical Science, and among the many discoverers of the day, Hunter soon made himself known and appreciated. Often, however, by that strange sympathy which especially in science, causes the discovery of the same facts at the same time by different men, Hunter was disputed in his assertions, or himself disputed others, indeed cotemporary accounts lead us to suppose that he was in no wise backward in urging his claims upon public notice, or in denying the rights of others where he thought they infringed upon his own. Being, however, little skilled in literature, or the art of argument, it was tacitly agreed between them that John should make the discoveries while William the scholar, should support them with his pen. We thus soon find him engaged in a controversy with his old master Dr. Pott, whom Hunter accused of having stolen from himself and his brother one of their new discoveries. But the constant and laborious exertion which had characterized the progress of Hunter for the past ten years,

had made rapid inroads upon his health, and in 1759 he was attacked by inflammation of the lungs, and was advised to leave London for a change of climate. He therefore applied for an appointment in the army, and received that of Staff Surgeon. In this capacity he sailed from England in 1761, and obtained his first practice on gun shot wounds at the Siege of Belle-Isle, he was soon after ordered with the fleet to the Peninsula, where he remained on active duty until the end of the year. During this season of novel and active labor, Hunter did not cease to apply himself to congenial studies, and several new discoveries in physiology were made at this time, although not published to the world until long after. It has been stated by some of the enemies of Hunter, that while in the Army he endeavored to induce quarrels and discord among his colleagues, this accusation does not, however, rest upon sufficient foundation to be believed. In 1763 upon the proclamation of Peace, Hunter returned home with the Army.

During his absence abroad, the position he had filled with his brother William, had been given to another; and Hunter on his return found himself alone, and necessitated to rely entirely upon his own resources for future livelihood. And we have reason to suppose that this change in his affairs, although serious, was not distasteful to him, for of late years his connection with his brother had not been altogether a pleasant one, and it was probably necessity upon both sides which had held them so long together, necessity on the part of William for that Anatomical knowledge so far exceeding his own, and on that of John, for the means to live. However this may be, we find him now established in London and seeking to obtain that reputation and practice which would enable him to discharge his own moderate expenses of life, and add to his stock of Anatomical knowledge, already advancing with rapid strides until it was approaching the greatest scientific minds of the age.

But the success which he needed, was only to follow many years of laborious and persevering exertion, many years of dispute and controversy, and this was owing perhaps entirely to the intrinsic peculiarities of Hunter's disposition. A great mind always in action thinks seldom of those little amenities of life, which so often add as much to the success of a man in this world, as to his popularity; socially speaking, Hunter was not a pleasant man to be acquainted with, rough, almost boorish in his manners, excitable in his temperament, and tenacious of everything which could reflect credit on himself, he had now to enter the lists against such men as Potts, Bromfield, Hawkins, Sharp and Warner, men distinguished as theoretically and practically the greatest surgeons of the day, and not less noted for their affability of manners and gentlemanliness. Another obstacle against which Hunter had to contend was lack of means, he had no income except his half-pay, and although moderate in expenditure as far as personal comforts were concerned, he was lavish to profuseness when his beloved science came in question. To the collection and preparation of Anatomical Specimens, the elucidation of doubtful questions, and in every manner to advance the true usefulness and worth of science, Hunter devoted his time, his energies and his money. To increase his income he established a school of anatomy and operative surgery, where for many years he delivered lectures upon those subjects; he was not however very successful in this undertaking, the number of his pupils never rising above twenty. Among other means of which he availed himself to assure the increase of his collection, he gained possession by permission of all animals belonging to the various zoological collections in the country, that should die; and in return would often purchase rare animals and grant the exhibitors a life-interest while he claimed the body when dead. At this period we have reason to believe that Hunter determined upon

that grand course of study, the result of which should be to change the whole Science of Anatomy and Surgery. Conceiving that it was necessary for him who would minister to the wants of the body in disease, to rightly understand its state in health, and that this knowledge could not be reached except by comparison of the organs, members and powers of man with those of animals and even plants, he commenced a collection of living subjects for examination, comprising animals from every quarter of the globe, plants of all varieties, and even numbering among them the very insects, indigenous and exotic, and whose little lives he studied with the same unfailing interest, the same earnest motive that he bestowed on man himself. With these intentions, Hunter purchased a small lot of land about two miles from London, and although illy able to afford the expense, he erected there a building in which to pursue his investigations, and where he deposited each new specimen. Here in his leisure hours Hunter came to study nature, here was his only pleasure, and in watching the action of nature in all these her children, he found ample reward for the trouble and annoyances which elsewhere met each effort to advance in his profession. But the time was approaching when Hunter should commence that rise which so soon elevated him to the head of his class, and as an evidence of the reputation he was acquiring, we find him elected in 1767 a Fellow of the Royal Society, although his brother William was not elected to that body until sometime after. An accident which occurred to Hunter about this time, the rupture of one of the tendons of his leg while dancing gave him an opportunity of experimenting on himself, an occasion of which he did not fail to avail himself, and the result was a new theory concerning the process of reünion of divided tendons. In 1768 although actively opposed, Hunter was elected Surgeon of St. George's Hospital, and was soon after chosen a member of the Corporation of Surgeons.

These appointments were the means of indirectly increasing his income, by enabling him to obtain pupils among the young men who visited London for the purpose of completing their medical education, and from each of whom Hunter received a fee of five hundred guineas.

Among these young men we find the names of Dr. Jenner, Mr. Guy, and Sir Everard Home; men who afterwards became themselves distinguished as Anatomists and Surgeons. The pleasant relations which continued to exist between Hunter and his pupils through life, are an evidence of the regard in which he was held by those who really knew him. In 1771, Hunter published the first part of his Treatise on the Teeth, containing the natural history of those organs in a healthy state; in 1778 appeared the second part, treating of their disease. This work was the first which not only comprised full and complete views of the anatomy of the teeth, but also entered into their physiology and pathology to a greater degree, and with sounder judgment and more accurate observation, than any previous. In the constant improvements and discoveries in Dental Science which have been made since the publication of Hunter's work, many errors have of course been found, and its usefulness in its original form necessarily lessened; but although many improvements have been made, and many new applications discovered in the steam power, yet Watt is still considered the discoverer of the expansive power of that agent. Thus it should be with Hunter; when it is only within a few years that Dental Science has been considered worthy of separate educational institutions; when until as lately, few men of any scientific knowledge or reputation, would adopt it as a profession, when even now it is in its infancy; we can appreciate the efforts of John Hunter nearly a century ago, and can properly respect his regard for every member and every organ in the great system

of nature which induced him to devote his first labors to the discovery and explanation of all the properties of those despised but important organs. In July, 1771, Hunter having now established himself in his profession on apparently a firm basis, was united to Miss Home, sister of Sir Everard Home, a lady to whom he had been engaged for several years. Mrs. Hunter is described as handsome, witty, gay, and somewhat of a *bas bleu*; they appear, however, to have agreed well together, and to have experienced much happiness in each others society. At this period Hunter, at the request of the President of the Royal Society, contributed his first paper to the Philosophical Transactions of that body, on *post mortem* digestion; having made many experiments upon the power and properties of the gastric juice, he wrote in favor of this new theory, and although its truth has been combated by many distinguished anatomists, late experiments have proved the strength of his position. In the spring of 1779 Hunter was attacked with a spasm, affecting the heart, and doubtless the first inroad of the disease of which he died. It is stated by those who attended him during this attack, that it involved a complete cessation of the action of the heart, lasting for three-quarters of an hour, while respiration continued. A second paper by Hunter, before the Royal Society, comprised an examination of the electrical powers of the torpedo, entered into with a view of discovering their seat, much interest being at this period felt in electricity. In the autumn, Hunter delivered a course of lectures upon Surgery, before the pupils of St. George's Hospital. As a lecturer, Hunter was never popular, and apparently had no natural gifts for public speaking; his language was terse and forcible, but inelegant and coarse, while his delivery was unpleasant; his dislike to thus facing an audience amounted to a disease, and he was obliged to quiet his nerves with laudanum when about to ap-

pear. Yet notwithstanding these difficulties, he continued to lecture at intervals throughout his life, and always surrounded himself on these occasions with the most distinguished scientific men of his time; thus Astley Cooper, Abernethy, Chevalier, Macartney, and others, were his pupils. In 1775, Hunter conceived the idea of establishing a school of Natural History, and even made proposals to Jenner with this intention; the scheme, however, was given up. In January, 1776, Hunter was appointed Surgeon Extraordinary to the King; the following year he experienced a violent attack of vertigo, and on his partial recovery gave up his professional duties for a time, and retired to the sea-side to recuperate. At about this period, two papers read by Hunter before the Royal Society, attracted considerable attention, and are among the most valuable of his contributions to that body; they were respectively upon the "Best Means for Restoring Drowned Persons," and on "The Heat of Animals and Vegetables." He was also busily engaged in various experiments upon the nature and habits of various animals, and his letters, especially those to Jenner, with whom he maintained a friendly correspondence lasting for many years, are full of requests concerning the habits of hedgehogs, eels, and various other classes of animated nature. In 1780 occurred the difficulty between John Hunter and his brother William, caused by the claims put forth by both for the credit of a discovery made some years before, and in which both had probably some interest; this controversy was carried on with considerable bitterness, and the estrangement which ensued, terminated only at the death-bed of William Hunter. From this time until 1784, several papers of value were read by Mr. Hunter before the Royal Society, and these, with the conclusion of his work upon the teeth, in 1778, appear to comprise all his literary labors during those years. In 1785, Hunter erected a

new building for a Museum, more convenient for his purpose, and there deposited his large collection, not ceasing, however, his constant endeavors to increase it in magnitude and value.

In 1786 Hunter was appointed Deputy Surgeon General to the Army, and during the same year published his works upon the Venereal Disease and Animal Economy, the latter being a collection of his papers in the Philosophical Transactions. As an evidence of the eagerness with which he sought to obtain all rare specimens, it is related that O'Byrne the celebrated Irish giant dying in 1783, Hunter bribed the watchers round his coffin at an expense of £500, to permit his men to kidnap the body; this they did, and at the dead of night, it was conveyed to the dissecting room. This forms one of the finest skeletons in the Hunterian Museum. In 1788 the death of Pott, left Hunter the undisputed reputation of being the first Surgeon of England, a position to which he had arrived solely by the unceasing energy and activity of his own nature; having much to contend against in his own want of education, he had started at the foot of the ladder, and by unfailing perseverance, at last reached its summit. His health which for many years had been precarious, at this time began to fail rapidly, the attacks to which he had been subject becoming more frequent and severe. A peculiarity of his disease was the alarming effect upon his system, of any sudden fit of passion, or excitement of any kind. The last few years of his life appear to have been characterized by constant bickering and controversy, and on the 16th of October 1793, while attending a meeting of the Governors of St. George's Hospital, a sudden contradiction brought on such a state of excitement that he expired in a few moments in the arms of one of the physicians of the Hospital, having passed a life of sixty four years, in constant labor in the cause of Science.

We have thus rapidly glanced over the principal

events in the life of one to whom Science has owed so much. A few words concerning the result of one of the great objects which he followed so assiduously from his first entrance into the world, until his death. We have throughout this notice referred frequently to the vast collection of specimens and preparations illustrating his favorite science, which Hunter had brought together from all parts of the world, lavishing money, time and labor upon it without once swerving from his purpose. In his will, Hunter directed that his Museum should be offered to the British Government on fair terms and in the event of their rejecting the offer, it should be sold in whatever manner should best satisfy his executors. Following this desire of the deceased, the collection was offered for £15,000 to the government. It was not, however, until 1796, and after the most constant and earnest efforts of the friends of Hunter, that the House of Commons was induced to vote the stipulated sum. Hunter himself estimated the cost of his collection at upwards of £60,000 and the most eminent scientific men of the day, placed its value at a much higher sum than was demanded for it. In 1799 the guardianship of the Hunterian Museum having been refused by the College of Physicians, was accepted by the Corporation of Surgeons, under whose care it has since remained. The collection, however, has been vastly improved and extended since its first purchase, its cost for maintaining and increasing, having averaged £3000 per annum. The Hunterian Museum, besides containing a superb collection of preparations designed to illustrate the laws of nature, also comprises many curious specimens of apparent departures from those laws, including monsters, malformations, &c. Its collection of fossils, shells, zoophytes and insects, is also large and very complete; besides these are specimens in Natural History, stuffed or preserved in spirits, and finally a collection of drawings, oil paintings and casts, completes a Museum

unrivalled in the world. In making this collection there appear to have existed in Hunter's mind two intentions, first to leave behind him one great work which should give to the world undying evidence of the beauty and wealth of creation, and of the value of science, which at once discovers, stories and explains all the facts necessary for the elucidation of her mysteries. And secondly to make amends to his family, as it were, for the lavish expenditure of his means upon this object during his life, by leaving what should prove to them a subsistence after his death. Successful in both these wishes Hunter could die, and leave also the assurance that although not perfect in character, or always just and right in his actions, yet the great bequest he had left the human race, the life spent in the advancement of human welfare, should go farther toward insuring him a glorious hereafter than the useless nonentity of many a more correct life. A few more words concerning the contributions of John Hunter toward the improvement and progress of Dental Science and we have done. At the period when Hunter wrote his work upon the Structure and Natural History of the Human Teeth, Dentistry as a Science was at its lowest ebb; confided entirely to ignorant mechanics, and knavish quacks, in its practice, it was ignored by the Scientific, and crept through a base existence, living only by the absolute necessity for its continuance in some form or another. Of the physiology—of the nature of these organs, nothing was known. Hunter was the only man who could see and he but dimly, that there is nothing in nature but is worthy of study, and that even those despised members of our organization, were needed to advance the progress of the great chain of creation. With his characteristic energy, it was sufficient for Hunter to know that here was opportunity for new discoveries, certainly here was labor in unploughed fields; and resolute to seek out, having no advantages of the experience

of others to go by, for he was the *alpha*, he plunged headlong into the sea of uncertainty, guided only by his just intentions and his correct judgment. True he erred perhaps in this work more than in any other from his hands, but naturally; the true light to view this labor, is in the road which it opened for others. Later minds, Fox, Blake and others hewed the passage still wider, and cleared away obstructions till then hidden even from the piercing sight of their great predecessor, to them all honor, but if we give them credit justly due, of having properly worked the mine, let us not forget that it was John Hunter the self-made man, who opened the vein.

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## PRINCIPLES AND PRACTICE OF DENTAL SURGERY.

### REVIEWS.

THE QUARTERLY JOURNAL OF DENTAL SCIENCE. *London.*

L'ART DENTAIRE, REVUE MENSUELLE DE LA CHIRURGIE ET LA PROTHESE DENTAIRE. *Paris.*

THE AMERICAN JOURNAL OF DENTAL SCIENCE. Edited by Chapin A. Harris and Alfred Blandy, M. D. and D. D. S.

THE PRINCIPLES AND PRACTICE OF DENTAL SURGERY. By Chapin A. Harris, M. D., D. D. S. Fifth edition.

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Selected from the "Edinburgh Medical Journal," for February, 1858.

[We wish to call especial attention to the following admirably written article, and would recommend its perusal to all who take an interest in the Science and its Progress.—Eds.]

The teaching and practice of Dental Surgery has of late attracted a somewhat unusual amount of attention, and apparently begins to have accorded to it that share of consideration which its importance and its present circumstances really demand. At various pe-

riods within the last few months, the columns of our different medical periodicals have, from time to time, been occupied with the subject, more especially as regards the education and qualifications which would appear desirable in those numerous individuals who adopt this branch as a special and exclusive calling.

A deficiency of some systematic mode of instruction, and a want of any definite qualifications among those undertaking the treatment of Dental disease, have of late been pointed out, and different proposals advanced with the view of improving matters in this direction ; and it is availing ourselves of the opportunity thus presented, that we take occasion to offer a few remarks, first, and very shortly, in reference to some of the works published in connection with Dentistry, constituting, as they do, an important element in the teaching of that department of Surgery ; and, secondly, in reference to the education and qualifications which seem desirable in its practitioners. Books on Dental Surgery appear to be the only special means of instruction, provided, in any thing like a general manner for practitioners in this branch ; and the few we have selected seem typical, each in its own way, of the different styles of literature thus offered on the subject. They may be divided into two great classes—viz., first, those which form elementary and systematic treatises on the subject ; and, secondly, such as take the periodical form, and constitute a record of those practical observations and improvements, or modifications in the art, which are constantly occurring as the results of invention or experience. Both of these forms may be again subdivided into what treats of the surgical, and what of the mechanical, section of the subject ; and the specimens we have cited, of such publications, are as fair and praiseworthy as they are useful and comprehensive examples.

Of the two classes, however, the periodicals seem likely to be more immediately valuable and beneficial

to Dentistry as a special art. Those belonging to the other class, that is elementary treatise on the subject, are more liable to abuse, these, it should be recollected, are merely calculated to serve like other textbooks, for suggesting what is necessary to be learned by the student, but are by no means, as seems to be too frequently supposed, sufficient to convey all the information required. Without some much more extended teaching than this, Dental Surgery and Dental Anatomy, like mechanical Dentistry, may be studied any length of time with little if any benefit; knowledge thus acquired is fraught with error, it may be danger, and is always imperfect, because superficial. Books, however elaborately compiled or however fully illustrated, will never render a man proficient in this or any other branch of medicine or surgery. Indeed, it is by no means the want of books, or the want of valuable information contained in them, on the subject of Dental surgery, that constitutes the defect in the teaching of practitioners in this branch; but the want of some further instruction, whereby what is treated of in such works may be seen and examined, and more precise information and practical knowledge regarding it be in this way acquired.

In reviewing the works, therefore, on Dental Surgery, especially those intended as elementary or educational in their nature, a more critical notice of the works themselves is not all that seems required in this state of matters; but rather a few general remarks in connection with them, so comprehensive, however, as to embrace another important question, viz., that unaccountable although obvious deficiency existing in the collateral instruction necessary for rendering the use of such works, at all fully or properly effective. The want of this additional means of instruction, and, indeed, the fact of its being scarcely recognized as necessary for, now-a-days, commencing practice as a Dentist, has been to a considerable extent the cause

of such books being, in a great measure, lost to members of that profession. Such treatises are felt to require something to render them appreciable, without which they appear on many points uninteresting or useless, and thus become neglected or altogether forgotten.

Considering these circumstances then, it may be excusable here to deviate somewhat from the usual tract followed in the notice of works published in connection with medical or surgical science, and briefly examine, as we have said, first, what generally is the education at present received by or required of Dental practitioners; second, what are the qualifications consequently prevailing among and recognized by them as sufficient for undertaking the treatment of Dental service; and third, what means of improving matters, in this respect, are left at our disposal. With reference to the education at present required of or received by Dentists, the fact that, owing to many obvious circumstances, Dentistry must always be considered and practiced, as a distinct and special, if not exclusive, department of surgery, exercises an important influence. As Dental Surgery, properly so called, almost unavoidably entails a certain proficiency in mechanical dentistry, so, on the other hand, mechanical dentistry is necessitated, in many instances, to combine with it the performance of certain surgical operations; and it is in this necessary combination of the two departments, that much of the difficulty has arisen, and is still found to exist. Here, perhaps, more than in any other case, the qualifications for practice have become arbitrary, and consequently, vary according to the opinion, the intelligence, and, it may be, the honesty of the practitioner; no definite criterion exists, by which the proficiency or fitness for undertaking such practice, or for assuming a so far surgical title, can be ascertained.

Accordingly, the system of education now very

commonly adopted in the training of Dentists, is little more than the mere apprenticeship demanded for undertaking the mechanical part of the business; a few opportunities for extracting teeth; the acquirement of a purely empirical knowledge of some of the diseased conditions of these organs; and an equally empirical knowledge of some modes of treatment pursued in them, is perhaps added; but this may be considered as the full extent of instruction received by much the greater proportion of dental practitioners of the present day. No acquaintance with the physiology of the structures themselves; of the pathological nature of their diseases; or of the principles upon which the treatment of these diseases should be conducted or is established, seems to be considered necessary, and is, consequently, seldom or never possessed by such as merely receive this kind of instruction.

Now, it is by no means to be able merely to relieve toothache or extract a tooth, that ought to be the limits of surgical qualification possessed by dental practitioners.

Connected with the subject of Dentistry, and unavoidably interfered with by the Dentist, we have even the diseases of childhood during dentition,—which if not caused by are at least all intimately associated with this process, and the beneficial results of a more extensive acquaintance with which diseases as directly and indirectly connected with dentition, is perhaps yet only to be ascertained; we have those affections common to the teeth and mouth in after life; and what is more important still, we have their indirect evil results, in many cases so much more serious than the primary disease itself; these, and in connection with them the value of an acquaintance with the pathology and diagnosis of tumours, abscess, various forms of neuralgia, dyspepsia, etc.; all demand that instruction in these matters should be

comprehended in the education of the dentist, as it becomes of the utmost importance that the detection of such diseases might, at least where the circumstances should so require it, be with safety and confidence committed to his care.

It may be thought that this is conferring undue importance on such a branch of medicine as Dental Surgery. But no sectional departments of medicine can be with safety set down as unimportant; we may isolate them from the relations they bear to the science, considered as a whole, and in that way hide ourselves and fail to recognize their worth; but, in truth, they are all links in one great chain of facts; each has its own place; and the value it possesses lies, not so much in itself, as in its connection with those other facts to which it is related; and so it is in regard to the pathology and surgery of the dental system.

As the natural result of this defective method of instruction, so generally pursued by dental practitioners, we find the amount of surgical qualifications among them to be correspondingly deficient. The very mode of education thus open to, and by many regarded as adequate for practising, in this line, is in itself an excuse, and more than an excuse, it is the reason of this want of sufficient qualifications in many who undertake the treatment of Dental disease. Those who cannot see that such education is insufficient, surely must be regarded as only thereby illustrating the danger of a little knowledge. It is exactly this mistaken view of the matter, which leads to such an amount of instruction being here so frequently considered sufficient to a right to assume the title of "Surgeon." In no case is this title more abused or more irregularly assumed, than it is by Dentists; the terms Surgeon-Accoucheur Surgeon-Oculist, Surgeon-Apothecary, invariably imply, that the possessor of any of these titles has obtained a Sur-

gical Diploma ; but to state that one half of those who assume the title of Surgeon-Dentist, do so without any such warrant at all, is to speak at least within the mark.

But apart from the benefit of an increased acquaintance with the subject before us to the practitioner himself, even the very limited extent of knowledge existing on many points in Dental Surgery, demand some improvement on other grounds. A very imperfect conception of many simple matters connected with Dental Surgery, prevails not only among Dental practitioners, but also among some otherwise fully qualified medical men. This becomes at once obvious, if we reflect how little is generally understood either of the physiology or pathology of the teeth ; how much ignorance prevails regarding the mode of developement and their successive stages during Dentition, how comparatively few practitioners, notwithstanding the very familiar manner in which the subject is every day talked about, would undertake to give anything like a scientific or correct resumé, however short, of the process of Dentition, even in its healthy state ; or to describe correctly its different stages during infancy and childhood ; the various epochs at which its most ordinary phenomena occur ; far less what the pathology of its disorders really is at all ; and yet, where is the practitioner, where is the Dentist, who will not undertake its treatment from beginning to end ?

How many instances are met with where the anomalous nature of the diseases, to which the teeth are liable, and the modifications of treatment required in them, are known only in the most vague and imperfect manner—how many cases where even the number of teeth which should exist within the mouth, at any given age, is scarcely any better understood. While, as for the amount of pretence and quackery, at the same time, as to Dentistry is practised by many such imperfectly qualified individuals,—that

may be satisfactorily ascertained by a glance at the advertising columns of most of the leading newspapers of this and almost every other country.

In thus advancing, any remarks on the position taken by Dental Surgery at the present day, we can scarcely be understood as implying anything whatever derogatory to those numerous respectable practitioners in this branch, whom an imperfect system of legislation, and the want of any imperative or even of any definitely prescribed course of instruction, may thus have placed in circumstances which might otherwise seem to be irregular, we refer to this branch of Surgery, without having received any complete Surgical education. On the contrary, we regard this proceeding on their part, in the existing state of matters, as warranted and quite justifiable; unless a better system of education is provided for Dental Practitioners than at present exists, or some regulation be enacted so as to ascertain a certain amount of fitness for this profession, no alteration or amendment in this respect can be looked for.

The general feeling of the Dental profession itself, however, is most certainly that at least some more adequate means of instruction, especially in the physiology and surgery of the teeth, would be most desirable; and there is no doubt that the superiority even of a complete Surgical education, did circumstances permit of it, is by many equally well recognized and admitted. Beneficial as any plan of conveying even a partial surgical education, especially in this branch might be, and difficult as it is to find a remedy at once sufficiently mild and yet sufficiently powerful for the present exigencies of the case, any more limited mode of education than this does not really strike at the root of the matter; and this will be more and more clearly perceived, according as a greater amount of knowledge is imparted, and discloses to a greater extent the importance of the subject.

Indeed, in most cases where any such full qualification being required in Dental Practitioners is objected to, or considered out of place, it is in the circumstances of the case, and not in the conviction of further instructions being superfluous, that the objection consists. And this feeling is quite excusable ; however desirable it is that those who undertake the treatment of Dental disease should possess a surgeon's diploma, it would require time to bring a proposal of this kind into anything like general operation—and any measures, or legislative enactment, unless in no way retrospective, which might at one stroke demand such conditions of existing practitioners, would undoubtedly be oppressive, and be of a most injurious instead of a beneficial tendency. That is not to say, however, but that this, were it practicable, would be preferable and the most consistent—indeed the only legitimate method of setting matters right in this case. Those who embark in the study and practice of medicine in any form, must not each one respectively be competent for one duty, and for that one duty alone ; but each man must be able and ready in the hour of danger—an hour which sometimes overtakes the simplest as well as the most formidable operations—each man must then be ready to renounce his favorite or his allotted post, and bear a hand wherever and at whatever he may be wanted.

Thus in Dental practice serious consequences, and even fatal results, occasionally follow such simple operations as are comprehended within its sphere ; and of late more than ever are there certain risks to be apprehended in the performance of such operations ; since the introduction of chloroform for example, patients very naturally, and very properly, demand its administration previously to undergoing any painful remedial measures ; and although this agent may quite possibly be again and again administered with impunity by the most ignorant, yet how

can we be certain that all the resources of the most fully qualified medical man may not here be demanded at a moments notice?

It is, however, the creditable spirit of the age in which we live, not to inquire, as such a mode of reasoning as this would imply, how little knowledge will be sufficient for our purpose, but rather to discover how much it is possible to obtain; and it is availing ourselves of this fact, that we venture on our present remarks. Thus, time was when diseases of the eye, diseases of the ear, diseases of the skin, were no doubt recognized and treated by Physicians, well enough—as they supposed—long before such branches were made the subject of special instruction. Then, these branches also, were in all probability regarded as of far too little consequence to merit being separately studied; but as their subjects by such means became better understood, the necessity for more attention being bestowed upon them, was more and more clearly perceived. And now, with our advanced knowledge in such branches, what should we think of any one who, this day, should assert that this increased attention to such subjects had done no good: was useless and superfluous: and that no necessity existed for it? Unfortunately, however, Dental Surgery has failed to advance along with other sectional departments of medicine; its position has not even merely remained stationary; but its movements have been positively retrograde. Neglected by the general practitioner, while of almost universal and hourly occurrence, and of a nature most troublesome to patients, disease connected with the Dental system has thus naturally enough been seized upon often by the mere adventurer—has been taken out of the Surgeon's hands as a branch for which he is virtually incompetent—and is attempted to be set up as an entirely isolated profession with which legitimate surgery has no call, if it have any right, to interfere. The result has followed

as we know, that while in other diseases the attention of men whose education is adequate for such a duty, is being directed to diminishing the frequency of their occurrence, rather than towards their cure,—disease of the teeth has been relinquished by, and meets with no attention from such inquirers, and prevails as much, and is understood as little as ever.

The question, then principally concerning us here is,—How are those evils to be remedied, and how is the position of Dental Surgery, as a special line of practice, to be elevated from the place it now occupies ?

There seems to be no doubt that the obvious means of accomplishing such ends consists in requiring of, and providing for, practitioners in this branch, a better system of education in Surgery than at present exists. Two methods may be found for carrying this into effect, namely, first, that every one adopting the practice of Dental Surgery should be required to possess a Surgical Diploma or other equivalent qualification, and have any special education in Dentistry superadded to this. Or, second, that a limited and special course of instruction, practical as well as theoretical and elementary, in Dental Surgery, shall be afforded, and considered imperative on such as might not possess, or might not feel desirous of obtaining, a regular Diploma. Were it practicable, there is no question that the really legitimate qualifications for undertaking Surgical operations, or other treatment for Dental disease, would be the possession of some such degree as is required of other Surgical practitioners. But difficulties lie in the way of attaining this object, as we have already remarked ; and some preliminary, or intermediate arrangement might perhaps require to be adopted in the first instance, and which might, in the meantime, prepare the way for the more desirable and complete being ultimately introduced.

The most likely arrangement, according to this view,

seems to be that inculcated in our second proposal, namely, that some limited and special instruction in Surgery, as applicable to Dental disease, should be acquired by Dentists ; by such means a more extended knowledge on this part of the subject, would be conferred upon those who choose to avail themselves of the advantages thus provided ; and without holding out any such inducement as that of obtaining in this manner, a Pseudo-medical Degree, or title—always a dangerous acquisition—there is little doubt that many would take advantage of such an opportunity, that much benefit would in this way be the result, and an essential service be done to those who are intending to follow out the practice of this line. But such an amount of education as this, we say, could not, of course, be expected to entitle its possessors to any thing worthy of the name of a Surgical Diploma ; such partial degrees are in every way reprehensible—being not only from their incomplete and fractional nature, inconsistent and absurd in themselves, but liable to be perverted from their original and proper intention, and to be made the means of deception—a cloak under which the work of Charlatanism might be carried on with more convenient seeming, and which might serve as some thing like a warrant for practice of a far wider extent than was ever originally contemplated in conferring them. Let those who consider it desirable or advantageous to qualify themselves as really Surgeon-Dentists, obtain a *bona fide* Surgical Diploma : let those who consider this immaterial or unnecessary, have in the meantime, at least a better opportunity than generally exists, of acquiring some elementary or epitomised notions of physiology, pathology, and treatment, as applicable to Dental diseases, rather than that error and maltreatment in Dental Practice should so much prevail. This, we say, might serve as a preliminary step to further improvement in the same direction. Such instruction has long been in England, and could

easily be any where superadded as an optional branch to the usual course of study in all our Medical Schools ; and, while it might thus be of service to such as merely wished to become somewhat conversant exclusively with this particular branch, it would at the same time afford opportunities for those who intended adopting general practice to acquire a better and more perfect knowledge of disorders connected with the teeth than is by any means generally possessed.

One of the principal objects of special lectures is that more attention may be devoted to such structures as are, in their organization, complicated and obscure, or it may be exceptional and unique ; to become familiar with the healthy and morbid conditions of such organs require time to be devoted to their special study—as is the case for example with the eye and its diseases ; and the peculiarities of structural and functional characters met with in the developement—the tissues—and the diseases of the Dental system in man, appear in this case to render such alteration equally necessary.

To point out any one particular course to be pursued with such objects, and with the view of carrying the suggestions into effect is not the purpose of our remarks. Their purposes are the inculcation of the great necessity existing for some improvement in the position of this branch of Surgery, the enforcement of some available and general principles by which a more satisfactory mode of instruction, along with better qualifications, might be placed within the reach of those who adopt its practice : and, in advancing them, we are only echoing the sentiments prevailing among the great mass of Dental Practitioners of the present day. That no arrangement has been made before this day, by which the practice of Dental Surgery might entail the possession of at least some Surgical qualification, exhibits the neglect with which the subject has been treated ; but this is no palliation of matters, or any

reason why they should any longer be left as they are; however much may be the disposition to advocate liberal views in a question of this kind, not only justice to patients, but justice to practitioners, here demands immediate reform. That the legally qualified practitioner should be considered to rank, and be recognised only in common, with any one who merely assumes a surreptitious title to practise along with him, is manifest injustice; and it here becomes the duty, no less than it is the prerogative of the different licensing bodies, to protect the rights, and so far maintain the position, of those upon whom they have conferred such right and title to practise, when these are infringed upon. But the irregularity and inconsistency involved in the present circumstances of Dental Surgery, are too clearly perceptible to require much comment; surely their improvement may be confidently looked for; and that the objects we have in view in making these remarks will, at no distant period, be favorably regarded and ultimately obtained, seems a conviction with which any one regarding the matter impartially, cannot fail to be impressed.

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## CONTINUOUS GUM WORK.

BY DR. B. W. FRANKLIN.

To treat of the general subject of Mechanical Dentistry would require more time than my engagements would allow, and probably occupy more space in your Journal than would be profitable. I shall, therefore,

confine myself to one particular branch of mechanical Dentistry, viz : Allen's Continuous Gum Work on Platina, leaving to those who may be partial to other systems, to speak for themselves. If we were in possession of specimens of the various fixtures, and, the materials of which they were composed and used as substitutes for, the natural teeth, for the past twenty years, they would make a rare collection of curious things ; and a comparison with our best artificial dentures of this time, would not fail to forcibly impress every one that we have made decided progress. It is not my purpose to speak of the merits or demerits of the many systems employed at this time. The profession and a discriminating public will decide upon them. Each must endure for a longer or shorter period as they serve, or fail to serve the purposes for which they are intended. The animal, vegetable and mineral kingdoms are at the command of the Dentist, and it is for him to determine which of these furnishes materials best calculated to resist the chemical action of the secretions of the mouth. Purity and strength in mastication ; upon these depend (all other circumstances being equal) the health and consequent happiness of the patient.

If the simple loss of the teeth were all the Dentist was required to supply, the substitution of them would be an operation of easy accomplishment, and it would seem in too many cases that the insertion of a given number of teeth in the patient's mouth, and the "price" in the Dentist's pocket, were the only principles involved in the transaction. And hence it is that we daily meet with persons who carry in their very looks the unmistakable evidence of having been to "their Dentist." I believe there is no other vocation known among men which has given profitable employment to so many with so little uniformity in results. Doubtless, this is attributable in part to the want of a proper Dental education, and partly in

consequence of the ignorance of the public in regard to what constitutes the highest perfection to which artistic Dentistry has attained. The facility offered by cheap advertising, and the disposition on the part of men in "position" to help a "friend" with their name, too often imparts character to men and "things" which, if dependent on their own merits, would fall to the ground comparatively harmless. In this connection I cannot refrain from quoting from "Harris' Principles and practice of Dental Surgery."

"But notwithstanding the triumphs of Mechanical Dentistry, and the high state of excellence to which it has arrived, there never was a time when so much injury was inflicted, and suffering occasioned by artificial teeth, as at the present, and resulting, too, from their bad construction and incorrect application. That such should be the case when there are so many scientific and skillful practitioners in every city and in many of the towns in the country, may seem strange, but the fact is nevertheless undeniable."

The truth is, heretofore there has been too little importance attached to this branch of our art. Dentists of deservedly high standing have confided their mechanical work to students and mechanical workmen, who seldom if ever see the patient and consequently can know but little of the requirements of the case. With them, the arrangement of the required number of teeth and a beautiful polish to the metal work, constitute the chief excellence of their mechanical efforts. I venture the assertion, that it requires more cultivated talent, more close observation, more taste and discriminating judgment in the selection and arrangement of artificial teeth so as to give them a natural appearance and truthful expression, with an articulation which will sustain the greatest force in mastication without displacement, and a perfect restoration of the face; in short to meet all the requirements of the case in hand and

secure to the patient all the advantages of our art in its highest perfection, more experience, more time and application than is required to perfect one's-self in every other department of Dental Science. This may be denied by some, but my experience sustains this view. Our Dental journals and Dental associations and conventions treat Mechanical Dentistry as a thing of little importance. So much so that at the American Dental Convention, held in the city of New York in 1856, but one hour of the three days' session was devoted to the consideration of improvements in Mechanical Dentistry. When the time shall come that the profession will attach that importance to this department of our art that its necessities demand, there will be less cause of complaint on the part of the public, and Mechanical Dentistry will take a position among the sciences which never produce diverse results.

I will now proceed to describe my manner of manipulating continuous gum work for artificial dentures. The first thing essential to success, is a correct impression. This can only be obtained with good plaster. Impressions are taken in plaster for full and partial sets. In taking impressions for cases where teeth are remaining, a proper shaped cup is required and a wax impression is first taken. The wax is then cut away to the depth of one-eighth of an inch, or more where the plate is to rest, leaving a thin wall of wax around the teeth. The wax impression, as cut down, is filled with plaster, and a perfectly reliable plaster impression can be taken of the most difficult mouths. We varnish the impression with thin shellac varnish and when dry, oil and fill for the model. When the model is sufficiently hard, break away the impression, trim the model and mark on the outside of the alveolar ridge where we design the plate to terminate. We then build a shoulder of wax or plaster on the model up to the line indicating the bound-

ery of the plate, for the purpose of striking or swaging the plate at right angles for a rim.

This is better than wire soldered on for the same purpose, and is less trouble. We now varnish the model and when dry, it is ready for moulding.

Pulverized soap stone added to very fine sand in the proportion of 1 to 8, thoroughly mixed together and wet with water, we find to be best adopted to this purpose. A little experience will enable the operator to determine the proper consistency of the sand. It should be just wet enough to hold together under the pressure of the hand. If the model is overhanging in the least we use "Hawes' Moulding Flask." With this flask we can mould the most difficult upper model that has ever come under our notice. We use zinc for the male and equal parts of tin and lead for the female die. The zinc should be of the best quality, and used not more than four to six times. Great care is required in melting, to avoid overheating it, as the shrinkage is greater; besides the danger of generating steam from the sand. We never allow all the zinc in the ladle to melt before being removed from the fire; this, perhaps, is the best safeguard against overheating. The zinc should be allowed to cool in the ladle, occasionally stirring the mass to prevent crystalization, and poured into the sand as cold as possible. After the die is cold we smoke the face, with the flame of an oil lamp or gas burner. Then place it in sand (face up) and allow the latter to extend up to the shoulder designed for striking the rim. We now place a ring of iron around the die, permitting the lower edge to rest on the sand, and also packing a little sand around it to prevent the metal from running under. Then pour the lead and tin, taking care that the metal strikes the sand outside of the die first, and flows over the face. When cold, we separate the die and counter die, and smoke the latter or wash it with a solution of sulphate of copper, then

run fusible, type or Babbit metal into it, using this die and counter die for the first breaking up of the plate.

We use the best French platina plate varying in thickness from 29 to 30 common guage.

If the bed is battered or driven back in the first swaging, we run the bed over the zinc again. We now have a fresh, sharp die and bed. With these a light blow with a hammer will complete the operation of swaging the plate in the most perfect manner. The plate is now ready for the articulation or bite. This is done by placing a rim of wax on the plate sufficient to indicate the length of the teeth required. The plate with the wax attached may then be placed in the patient's mouth and trimmed until the edge of the wax represents the length and circle that is required for the teeth. We now instruct the patient to gently close the mouth. If any one of the antagonizing teeth strike the wax before the others, we cut away the wax at the point of contact ; one after the other, until all the teeth strike at the same time. Then with the hand, press the chin upwards, only sufficient to make an impression of the points of the teeth. Now remove the plate and wax, and place it in cold water for the purpose of hardening the wax. Next soften wax sufficient to take the impression of the front of the antagonizing teeth and gum.

After placing the plate and wax in the mouth again, wipe the front of the hardened wax dry, and close the mouth firmly against it. Then take the softened wax and press it against the front of the teeth and gum, and over the hardened wax, so as to unite both together.

We now have the required length of the teeth to be mounted, represented by the wax on the plate, and the impression of the length and position of the antagonizing teeth and gum in the wax last applied. The whole is now removed from the mouth, and a plaster

articulating model is made. We now arrange Continuous Gum teeth to the plate on wax, and if convenient, try the plate and teeth in the mouth, making such alterations in the position of the artificial teeth as will bring them in harmony with the features, and general requirements of the case. Next, build wax on the plate over the fangs of the teeth, until the desired fullness and expression of the face is obtained. We then place the piece on paper, and mark with a pencil close to the wax all around, thus giving an outline of all the prominences. This outline we follow while applying the body. Now remove the wax from the outside of the teeth and coat them with thick shellac varnish to prevent the teeth etching while soldering. The varnish keeps the investment from coming in contact with the teeth. Next invest or cover the teeth with plaster and asbestos equal parts, sufficiently thick to hold them in their position while backing. Remove the wax from the inside, and melt a little around the teeth, with the flame of a common blow-pipe, for the purpose of holding them more firmly in the investment.

We now take scraps of Platina wide enough to reach a little more than half the distance from the centre of one tooth to the centre of the next, and bend the foot of this lining at right angles about one sixteenth of an inch, splitting the part thus bent so as the more readily to conform to the inequalities of the plate, as seen in cut A. Now smear the points of the pins in the tooth with rouge and oil, bring the backing to its proper position, and press against the colored ends of the pins. This will indicate the places where the holes are to be punched in the back. Cut the back the proper length and make an angular incision in each upper corner of it, commencing at a point near the pins and diverging towards the plate, and running about half the length of the back. Press the back to its place over the pins, and bring the

angle at the foot in contact with the plate; clamp the pins and bend the angular pieces formed by the incision at the top, down against the backings, locking them together at the point crossing, and proceed in this manner with all the teeth, each back lapping on to the next all the way around the case, thus forming a continuous rim of metal as seen in cut A.

In long articulations we fit a strip of Platina below the pins resting against the backs and wide enough to extend to the angle at the foot of each lining, and then bend the corners formed by the angular incision at the upper end of the backing, over the rim or strip, as seen in cut B., thus forming a very strong continuous rim of metal of two thicknesses, adding greatly to the strength of the case when finished and also preventing the teeth changing position while backing. The backings are now to be soldered to the plate, (with pure gold,) care being taken that the pins and every part are thoroughly soldered. To prevent the gold from running on to the surface of the plate, a line or scratch cut with a knife or other sharp instrument around the base of and close to the backings will prove effectual. When cold remove the investment, saving the base or that portion under the plate, to be used when backing the body and gum. The case should now be placed in strong muriatic acid, to decompose the glass of borax, after which it should be thoroughly rinsed with water to remove the acid. We now score the plate and backings either with a sharp pointed instrument, by cutting fine lines or scratches over the surface where the body is to come in contact, or with a graver raise a succession of little points over the entire surface. Either way will answer. The last is somewhat better, but more difficult. The case is now ready for the body. At this point much might be said in regard to the different siliceous compounds in use for this work. The makers are certainly deserving of great credit for their untir-

ing labors to overcome the many difficulties presented. The principal one heretofore experienced has been in repairing the work. This, however, is now entirely overcome, as work put up with the present materials will repair without the least trouble. In case of accident or when alterations are required after the case has been worn any length of time, we usually heat the case up slowly to a dark red heat, which burns all foreign matter from the surface. before making the required alterations or repairs. The piece will then work as pleasantly as though it had never been in the mouth.

We would advise all Dentists who are making Continuous Gum work to keep themselves in communication with the manufacturers of the materials for this work, as they will be able to get the very best in market, and have the benefit of any improvement as soon as made.

The first coat of body should be applied quite thin, great care being taken to fill every space around and between the teeth and backings. The case should be frequently tapped or jarred with some light instrument to settle the body together, absorbing the water from the surface with absorbing paper or cloth, repeating the operation as long as the moisture comes to the surface. Then apply body less wet, building up and carving into the desired form. Reference should be had to the outline drawing before made, to ascertain if all the points are sufficiently prominent, or too much so, and alter accordingly. Care must be taken to remove all body adhering, to the crowns of the teeth. The piece is now ready for the first baking, which may be done in any common tooth furnace. The one recently introduced by E. A. L. Roberts, 55 Bond street, New York, is the best for this kind of work that we have ever seen. The case should be advanced very slowly into the muffle (the best Lehigh coal being used for fuel) and the heat carried but a

little above the melting point of pure gold. The first coat of body requires less heat than the second. The body after baking (for strength) should present a raspy surface under the finger nail. When the piece is cold, the rim should be turned as much as required, (the body having been pared away before baking to allow this,) all of the seams filled up with fresh body, and the build-up, and carving completed as required when finished. It is now baked the second time, the heat being carried a little higher than before. After each baking the work should be allowed to cool down slowly in a cooling muffle and carefully protected from all currents of cold air. If, after the second baking, any seams are visible, they may be filled with body ground *very fine*, and the gum enamel applied. The beauty of the work depends much upon the quantity and quality of enamel used. It should be applied even in thickness, as smooth and compactly as possible, and heated up very slowly. An hour or more should be occupied in bringing the piece into the baking heat, which should be near a white heat. The enamel should flow smooth and look glossy in the muffle. When sufficiently fused the case should be transferred to a moderately heated muffle and allowed to cool down slowly, and when a little below the temperature of 212 degrees it may be placed in water, heated to the temperature and remain until cold. This prevents any checking of the gum.

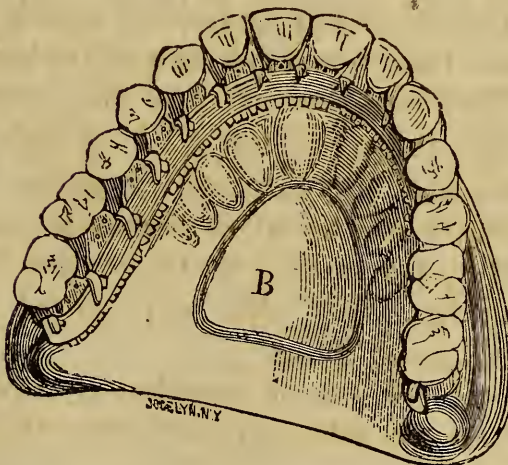
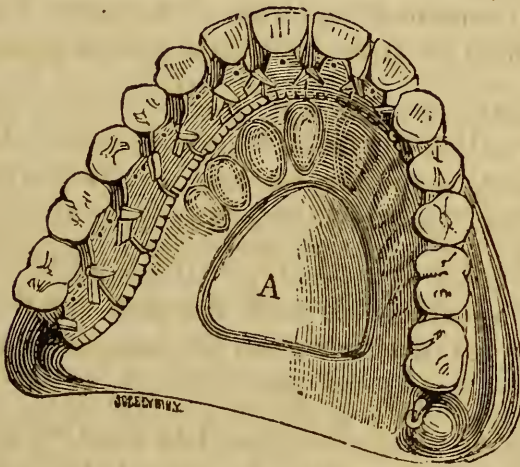
The durability of the work depends upon the manner the teeth are secured to the plate, and the care taken in manipulating the body so as to render it a compact and solid mass.

As a system, I know of no other that presents fewer difficulties or more advantages to the Dentist and patient.

All the materials in their nature are indestructible, its application universal for full cases, uniform in results, and its accomplishment not difficult. The time

has come when all the doubts which formerly existed in regard to its utility are dissipated.

This age is not unlike many which have passed away. "They stoned the prophets;" but a more advanced civilization build monuments to their memory.



[From Appleton's New American Cyclopaedia, Vol. I.]

## ANÆSTHETICS.

ANÆSTHETICS (Gr. *a* privative, and *αισθανουαι*, to feel), substances which can produce a general or partial suspension of nervous power, by most considered as restricted to the sense of touch. In the common acceptation of the term should be included all drugs which have the faculty of so acting upon the brain, that this effect can be caused ; for instance, all the forms of narcotics and diffusible stimulants. But by general consent, during the past few years, this title has been confined to the most volatile forms of chemical agents which can produce the effect when inhaled, or applied externally, and the effects of which are transitory ; the terms narcotization and coma being applied, where a long-continued effect is caused by other agents. The action of all anæsthetic agents is through the medium of the blood, into which they are taken either from the lungs, the stomach, or by the skin, and carried by the circulation to the brain, where they produce a very profound but transient state of intoxication. Anæsthesia is said to be either general or local ; general, when all power over the mind or body is lost ; local, when only a particular part of the body is affected, the brain and rest of the system remaining as ordinarily. Loss of sensation, in restricted portions of the body, has been attempted in various ways, by long pressure upon the nervous trunks leading to the part, first put in operation by Ambrose Paré, afterward adopted by Dr. Moore, about 1784 ; the application of carbonic acid gas, recommended by Dr. Hickman in 1828, a procedure which has again been lately revived by Dr. Simpson ; the application of the various ethers especially chloroform ; and by a true freezing of the part, as recommended by Dr. James Arnott, of London, who employs for the purpose a mixture of pounded ice and common salt enclosed in a muslin bag. But thus far, the results of all have been but meagre, as it has been found almost impossible to reduce the sensation of the part to a low enough degree, to prevent some amount of pain without danger of destroying its vitality. Various anæsthetic agents have been employed at different times—the several kinds of ethers, nitric, acetic, sulphuric, &c., protoxide of nitrogen (“laughing gas”), aldehyde, olefiant gas, naphtha, carburetted hydrogen, Dutch liquid, benzoin, chloroform, amylene, a substance introduced during the past year by Dr. Snow of London ; but none of them have proved so successful, or are now so generally used, as sulphuric ether and chloroform

This latter substance was discovered nearly at the same time in the year 1831, by Mr. Samuel Guthrie of Sackett's Harbor, New York, M. Soubeiran in France, and Prof. Liebig in Germany, but its chemical composition was not accurately known, until ascertained by Dumas and Peligot, in France, in the years 1834-5. Correctly speaking, it consists of 3 atoms of chlorine to 1 atom of formyle, hence the origin of its name and synonymes chloroformyle, formylchloride. Its true chemical definition, however, is a "terchloride of formyle which is the hypothetical radical of formic acid." Its use for the same purpose as sulphuric ether was first proposed by Dr. J. Y. Simpson of Edinburgh, in 1847. The advantages claimed for it over ether, are the smallness of the dose required, a more perfect action, less depression when the heart or lungs are diseased, a more rapid effect, less disgust to the patient during inhalation, absence of persistent odor, and lastly, that it is cheaper. But as unfortunately it has happened that several deaths have occurred from its use, a list of nearly 100 having been collected, it cannot be looked upon as so safe an agent as ether, from the use of which, no matter in how large quantities, or how carelessly, not one death has yet been reported. The benumbing of the nerves of sensation by the administration of narcotic drugs, has been practised for many years, and as record shows was known to the ancients, but with the exception of certain traditions as regards the use in east of the mandrake (*atropa mandagora*), and the hashish (*cannabis sativa*), in the form of vapor for this purpose, we have no proofs that anæsthetic inhalation was ever employed. Richard Pearson recommended the inhalation of sulphuric ether for asthma, &c., in 1795. and in 1816 Nysten described an instrument for its use. In Sir Humphrey Davy's "Researches concerning Nitrous Oxide," published the first year of this century, is this remark: "As nitrous oxide in its extensive operation seems capable of destroying physical pain it will probably be used with advantage during surgical operations, in which no great effusion of blood takes place." It is stated by recent French journals, that a manuscript has been discovered, written by the celebrated engineer Papin, in 1681, in which he proposed to deaden sensibility in the human body when undergoing surgical operations in the same manner as is now done by chloroform. The want of encouragement made him give up all attempts to introduce it into general practice. Dr. J. C. Warren, of Boston, prescribed ethereal inhalation for the relief pulmonary inflammation in 1805, and Mr. Wesley Smead, of Cincinnati, published an article on this treatment in 1822. The power of the ethers to produce insensibility was mentioned by Godman in 1822, Mitchell 1832, Prof. Samuel Jackson 1833, Wood and Bache 1833. But its application as an agent for the relief of pain during surgical operations was first publicly made at the Massachusetts general hospital in Boston, Oct. 16, 1846, when at the re-

quest of Dr. W. G. S. Morton, of that city, it was administered for that purpose. He had, however, previously employed it for several dental operations. On Nov. 12, he secured a patent for the use of the article in the United State, under the name of "Letheon." On Jan. 2, of the next year a new claimant for the discovery arose in the person of Dr. Charles T. Jackson, of the same city, who declared that he had first suggested its employment to Dr. Morton. The respective claims of each led to much bitter discussion and doubt, so that although the medical profession throughout the United States, generally, awarded the credit to Dr. Morton, the Academy of Sciences at Paris awarded the Monthyon prize of 2,500 francs to Dr. Jackson, as the discoverer. This, however, was soon after on more irrefragable proof reconsidered and a second prize of the same value and character was awarded to Dr. Morton. This diversity of opinion found full vent at the time of the famous "Ether Controversy," when in August 28, 1852, a bill was introduced into the United States Senate by Mr. Borland, to purchase of Dr. Morton his patent for the sum of \$100,000. The claims of each were ably argued, as well as those of a third contestant, the widow of Dr. Horace Wells, of Hartford, Ct., who claimed in the name of her husband. The decision ultimately arrived at, and which is most probably correct, was that Dr. Jackson and Dr. Morton had conversed together on the exhilarating effect which ether was then well known to cause, but that the latter first conceived the idea, and had the courage to employ it for this new purpose ; that after discovering his success he informed his friend Dr. Wells, who had received some previous intimation as is shown by a letter written Oct., 20, 1846, and that it was from a mistaken recollection of this intimation, that the widow of Dr. Wells maintained her claim.—The objects gained by the administration of anæsthetics are various, according as we have to do with surgery, midwifery, or medicine. In surgery : 1. A protracted and careful examination, and consequently more accurate diagnosis, can be made in many cases of disease and injury, where the intense pain caused by the examination, prevents the manipulation of the surgeon, as in fractures, dislocations, stone, &c., &c. 2. From the total relaxation which the muscles receive under a full dose, the reduction of many forms of dislocation, herniæ, &c., is facilitated. 3. In military service, under its influence, men can be removed to a distance where the operation can be conveniently performed, instead of as heretofore being obliged to operate upon the field of battle or in places otherwise unfavorable. 4. The general use of many forms of remedial operation is extended, which otherwise are attended with such exquisite agony that they were rarely resorted to unless from most extreme necessity, as for instance the application of the actual cautery, moxas, &c. 5. Many operations can now be performed for the relief of long continued disease, or after injury

which before would have been hazardous, owing to the depressed or feeble state of the patient. 6. Many delicate operations can now be easily performed where perfect quiet is demanded of the patient, and which can hardly be afforded by any amount of exercise of the will, as in operations upon the eye, dissections of nerves or the taking up of arteries. 7. Patients will now apply earlier than heretofore for relief in surgical diseases, the dread of the surgeon's knife often having induced them to postpone until the case became almost hopeless. 8. The mortality from operations has materially decreased, for it is well known that pain has a serious tendency to depress the nervous system and produce death from exhaustion.—In midwifery : 1. In addition to preserving the mother from the pain always incident to parturition, we have the power of preserving her strength unimpaired when the labor is long continued or especially severe. 2. in all cases of instrumental labor or those requiring manual assistance, the aid can be afforded with greater ease to the accoucher and more safety and less accompanying suffering to the mother. 3. Many cases of doubt in diagnosis can be more correctly solved. 4. From the relaxation of the muscular fibres, the exit of the child through the uterine neck or the vaginal passage when they are rigid, is facilitated. 5. Anæsthetics have the power of keeping in abeyance and reducing the violence of one the worst complications of labor, puerperal convulsions. 6. The recovery of the patient after labor is assisted and the chances of subsequent dangers lessened.—In medicine : 1. As a relief in severe or exhausting pain in disease as from toothache, passage of calculi, neuralgia, &c. 2. As a narcotic in mania, delirium tremens, excitement or wakefulness from any cause. 3. As an anti-spasmodic for chorea, hysteria, asthma, convulsions, &c. They have also been employed in many inflammatory diseases, fevers, &c., and in cholera. They are found very useful in the detection of feigned diseases, as affected paralysis, dumbness, contraction of limbs, &c. Within the last few years they have also been employed for nefarious purposes in cases of violence where a struggle or noise was feared, for murder, robbery, rape, &c. The first effect of all anæsthetics, or when they are taken in small quantities, is exhilarating and intoxicating as from any diffusible stimulant, evidenced by bursts of laughter, hysterical weeping, or loud unmeaning talking. When long continued or in large doses, there ensues a general feeling of warmth, extra power, and excitement generally first felt in the extremities, soon followed by a prickling, benumbed sensation, with confusion of ideas, noises in the ears, usually compared to the vibration of an engine from one side of the head to the other, and flashes of light before the eyes. This is soon followed by loss of sensation and voluntary motion, and total coma. The patient is generally observed to become a little flushed in the face, the veins of the forehead turgid, the eyes suffused and star-

ing open, and the pupils dilated. The pulse is generally increased at the commencement of inhalation, but becomes decreased often lower than natural when the system is fully under the influence, which is the time chosen for the performance of all great surgical operations. The respiration, which is slightly quickened at first, becomes slower and deeper in the somnific state. The temperature of the body remains generally of the ordinary standard, but becomes slightly reduced when the influence is long continued. The effects of the anæsthetics generally disappear almost immediately after the administration is discontinued, and the patient comes to perfect consciousness, or with merely a slight tendency to sleep and dizziness, with no recollection of anything which has happened during the inhalation. Sometimes, however, the recovery is attended with nausea or vomiting, which most often happens when the drug is taken when the stomach is full; for this reason it should never be given until several hours after a meal has been eaten. No person has yet been found to withstand the influence, but the effect is seen much sooner and more quietly in some than in others. They should never be used in diseases of the heart or brain, or where there is excessive degeneration of the lungs. When from an over-dose or the inattention of the giver, the patient seems likely to sink, and the pulsations are suspended, the vapor should be removed from the mouth at once, the patient laid in the reclining position, free access of air allowed, cold water dashed upon the face, and, if necessary, artificial respiration made, sinapisms placed on the feet, and galvanism used. Many instruments have been devised for inhalation, but, as often happens, the simplest means is usually the best. The most advisable plan for administering is to fold a coarse towel into the form of a small cone, in the bottom of which is to be placed a small sponge, upon which the liquid is to be poured. At the commencement, the sponge should be held at a small distance from the mouth, and the patient be directed inhale by deep and long-continued inspirations, notwithstanding the cough. As he gets more and more under the influence, it should be approached to the face, but it is imperatively necessary that there should be a free admission of atmospheric air. Particular attention should be paid to the condition of the pulse. If chloroform is used, it should be remembered that its vapor is heavier than the air, and consequently sinks; care should also be taken to guard the skin from its irritating properties by smearing slightly with oil or glycerine. The ratio of power of ether and chloroform is considered as about 8 to 1 in favor of the latter, this producing its effect in from 30 to 60 seconds; the former on an average in from 3 to 4 minutes. The dose of chloroform is from 30 drops to 1 oz.; that of ether is of almost any quantity, as much as two quarts having been employed in some long-continued and severe operations.

## BIBLIOTHECA ODONTALOGICA.

ABADIE.—Tratado Odontalgico, en el que se esponen las enfermedades de la dentadura, y los médios asi manuales como medicinales propios á corregir sus vicios y á conservar su limpieza. 8vo, Madrid, 1764.

ALBRECHT.—Sichere mittel gegen das Zahnweh. Oder der Kleine Zahnartz. 2 Ausg., 8vo. 1810.

ALEXANDER.—Odontiatric, oder die Lehre, wie man die Zahne gesund und schön erhalten und die Krankheit der Zahne nebst den verschiedenen. Arten der Zahnschmertzen grundlich, und sicher heben könne. Für Aerzte und gebild. Nichtærzte bearb. 8vo, Graudenz. 1820.

ALLVEY, SAMUEL.—Dissertatio de Dentione morbisque ex ea p'pententibus. Edinburgh, 1788.

Born in England ; a doctor in Edinburgh at the period of this publication.

ANDREE, CARL AUGUST.—Dissertatio de prima Puorum Dentitione. 4to, Leipsiæ. 1700. pp. 27.

Epistola de Odontagris ad dentes evellendos necessariis, eorum vi mechanica applicationeque. 4to, Leipsiæ. 1784. pp. 23.

Born at Dresden in 1762, where his father was Professor of Surgery ; studied at Leipzig, and received his degree of M. D. in 1790. He was afterwards Professor of Dental Surgery in his native town.

ANDRESSE, WILH.—Ueber das schwere Zahnen der Kinder ein dringender Rath an mütter und Alle, welche sich mit der Pflege der Kinder beschäftigen. 8vo, Berlin. 1835.

ARNOLDI, CARL GUIL.—De cariei dentium origine et prophylaxi commentatio. 8 Maj. confluentibus. 1839. Holscher.

ARROYO, DON FELIX PEREZ.—Tratado de las operaciones que deben practicarse en la dentadura y metedo para conservarla en buen estado. Recopilado de los mejores autores, y adornado con láminas que manifiestan la diferencia, forma y figura de los instrumentos necesarios para dichos operaciones. 8vo. Madrid. 1799.

ASHBURNER, JOHN.—Treatise on Dentition. 12mo. London.

ASSUR, JOEL.—Kort underrättelse om die mäst vanlige tandsjukdomar. 8vo. Stockholm. 1799.

Assur was a Swedish dentist.

AUDIBRANT, CHAMBLEY JOSEPH.—Essai sur de l'art du Dentiste. Paris. 1808.

Lettre aux dentistes sur les dents de porcelaine. 8vo. Paris. 1808.

Traité historique et pratique sur les dents artificielles incorruptibles, contenant les procédés de fabrication et d'application. 8vo. Paris. 1821. pp. 22, and 190.

Quelques reflexions, sur le procès intenté au Lord Comte de Bridgewater, par M. Dubois-Chemant, ainsi que son mémoire pour justifier ses prétensions. 4to. Paris. 1826. pp. 16.

AURIVILLIUS, SAMUFL.—De Dentitione difficili. 4to. Upsal. 1757.

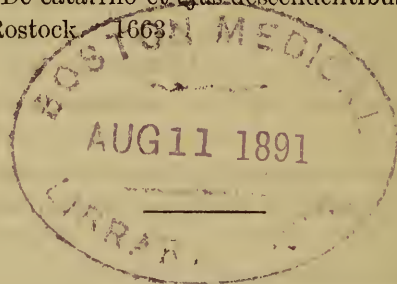
This little work, although generally ascribed to Aurivillius, is probably the work of his pupil, John Peter Halenius.

AUVITY, ANT.—Considérations générales, sur la première dentition et sur le sévrage. 4to. Paris. 1812.

AUZEPI, PIERRE.—Traité d'odontalgie, ou l'on présente un système nouveau sur l'origine et la formation des dents, une description des différentes maladies qui affectant la bouche et des moyens de les guérir. 12mo. Lyons. 1771.

Auzebi was a practical dentist; born at Nîmes in 1736, died at Lyons in 1791. His work appears to be principally an advertisement of his own medicines, but contains also directions for extracting teeth.

AVENIUS, HEINRICH.—De catarrho et ejus descenditibus adontalgia, epiphora et otalgia. 4to. Rostock. 1663.



## GUTTA PERCHA IMPRESSIONS FOR PARTIAL SETS.

BY C. S. PUTNAM.

I would state, by way of introduction, that for one, I never knew how to take a "first rate impression" over natural teeth, before using the gutta percha. Others may have succeeded better than myself in difficult cases, with wax and other substances, and I know that some have used the gutta percha long ago, and abandoned it for various reasons; some of which were: "the difficulties of obtaining it properly prepared; getting it into the mouth at the right temperature; and then in removing it from the plaster model without breaking the very teeth most desirable to preserve perfect."

The importance of its exclusive use, (when partial cases are to be made,) in preference to anything else now generally known, is so great, and held in such estimation by others than myself, and whose opinions are strictly reliable, that some good may be accomplished by giving the detail of a successful mode in manipulating it.

Almost any quality, or compound of it, with other substances, can be used, but that which is so prepared as to soften with the

least heat, and afterwards most readily becomes hard, is preferable.

A *dry heat* should always be employed in making it ready for the impression cup, and the same quantity taken as though wax were used. It should then be firmly pressed into the cup, and when so cooled as to be held on the back of the hand without burning, it is in proper condition to put into the mouth. In from two to three minutes it will have become sufficiently hard to remove; and in case of over-hanging and large crowned teeth, no "drag" will be perceptible, for the material will yield while removing, and immediately after assume the exact form as when in the mouth.

When fully cold, the edges and surplus can be trimmed down with a warm knife, so that the mouth part of the model, when made, will only present a surface intended for the plate.

*No oil or other substance* should ever be put upon a gutta percha impression before filling with plaster. To remove the impression from the plaster model, put the whole (when the plaster has hardened) into boiling water, where it should remain until the gutta percha is entirely softened; and even then, care will be necessary to prevent breaking off some over-hanging or crooked teeth. I may add a conviction that the plaster is made harder by the boiling water, though I am not prepared to explain the principle, unless it is simply the heat.

In conclusion, I have only to express the belief, that should any dentist who has heretofore depended upon wax impressions in partial cases, once become familiar with the above described process, he will never use the wax again, nor regret the time he may have spent in perusing this hastily prepared article.

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## MINUTES AND DISCUSSIONS OF THE NEW YORK DENTAL ASSOCIATION.

At a meeting of the Dentists, held at 57 Bond street, on Wednesday, Nov. 18th, at seven and a half o'clock, P. M., Dr. George S. Hawes was appointed Chairman, and Dr. J. G. Ambler, Secretary. The following resolution was adopted:

*Resolved*, That we deem it expedient to have a series of meetings for the interchange of views on subjects relating to the profession.

On motion, it was

*Resolved*, That a committee of one be appointed to make the announcement. Dr. G. H. Perine was chosen.

Accordingly, the following announcement was made :  
 "A meeting of the Dental Surgeons of New York and vicinity will be held at No. 57 Bond street, on Wednesday, Dec. 2d, at half-past seven, P. M.

"The object of the meeting is to associate for the promotion of the individual, as well as the general interest of the profession to which we belong.

"The invitation is intended to be general; and it is hoped that no one will feel himself neglected, in case he does not receive a copy of this Circular; but that each and all will interest themselves in the movement, and give it their hearty co-operation and support."

Agreeable to the call, a meeting was held at the above named place, on Wednesday, Dec. 2d, at half-past seven, P. M. Dr. F. H. Clark was appointed Chairman, Dr. J. G. Ambler, Secretary. The minutes of the previous meeting were read and approved.

After some discussion by Drs. Ballard, McIlroy, Perine, Roberts, Dodge, Covell, and Allen, it was, on motion of Dr. Covell,

*Resolved*, That a committee of five be appointed to present a Constitution and By-Laws.

The committee consisted of Drs. Covell, Ballard, Perine, Allen and Clark.

On motion, adjourned to meet at same place, Wednesday, Dec. 9th.

Pursuant to adjournment, a meeting was held at 57 Bond street. Dr. L. Covell was appointed Chairman *pro tem.*, Dr. J. G. Ambler, Secretary.

The minutes read and approved. The report of the committee on Constitution and By-Laws was read and adopted.

Dr. Castle thought the Constitution was too democratic. This gave rise to some discussion, in which Drs. Ballard, Perine, Clark and Ambler, took part. Finally, on motion, Dr. Perine, *Resolved*, That we consider the report of the committee, and it was taken up section by section, and re-adopted without debate.

The signature of members having been appended to the report, the election of officers was proceeded with.

Dr. J. G. Ambler was elected Secretary ; Dr. W. B. Roberts, Treasurer—the election of Chairman to take place at each meeting. Business Committee—Drs. C. W. Ballard, John Allen, L. Covell.

Dr. Perine proposed for the evening discussion, the “Treatment of Fangs,” upon which Drs. Perine, Ballard, Hawes, Clark and Roberts, expressed their views.

Subjects for discussions at the next meeting were proposed, and meeting adjourned.

These meetings are to be held twice a month.

Association met according to adjournment, at 57 Bond street, on Tuesday evening, Dec. 21st, 1857.

Dr. W. McIlroy was called to the chair. The minutes read and approved, after which, the subject propounded by the committee was read, namely, *The clasping natural teeth, inserting artificial ones on plate. The best method of clasping, whether by wide or narrow clasps. The best means of preventing injury to the natural teeth.*

The discussion was opened by Dr. Clark, reading a paper on the subject. He supposed it was safe to say that clasps were always injurious to the teeth. Decay, however, was in a great degree caused not by the action of the clasp, but by the collection of impure matter between the clasp and the tooth, which formed a destructive acid. There was a difference of opinion as to the best width for clasps. His opinion was that in cases where only perpendicular support was wanted,

the clasps should be made so as only to touch the teeth in two or three places, and these places as small as practicable.

Dr. Covell considered there was a slight discrepancy in the views prevented by Dr. Clark. If, as he stated, teeth were always found to be most sound at the point of contact with the clasp, it would follow that the clasp, instead of being made narrow, should be made to cover every part of the tooth.

Dr. Clark wished to know if Dr. Covell had ever seen a man who could make every part of a clasp touch the tooth, unless he would fill it round and make it regular in shape.

Dr. Covell did not insinuate that they could make the clasp touch every part. He simply alluded to the point that if the places where the clasp touched were the places preserved, then they ought to make it touch as much of the tooth as possible.

Dr. Perine said he had given the subject some thought, as to narrow and wide clasps. If the clasps were narrow, they all knew there was less power of resistance; where the enamel terminated at the gum, the clasp acted there, the tooth became irritated very *easily*, and inflammation ensued. If narrow clasps were in some respects preferable to wide ones, he would say let them be adjusted so as to come some distance from the gum—as much so as possible—that there might be a stronger enamel to resist the action of the clasp. He explained the method he had adopted in adjusting clasps—leaves quite a space between the plate and clasp, connecting them at two points as high upon the tooth as possible, thus giving a free circulation. Had seen a case recently, similar to the method he spoke of, that was made by Dr. Hale, of St. Louis, which had been worn about twenty years—the gum and teeth were still in healthy condition.

Dr. Ambler asked if Dr. Perine had not found, where clasps were adjusted in the manner he described, the gum to protrude between the clasp and plate.

Dr. Perine replied that he had not, except in cases where the gums were in a soft and spongy state.

Dr. Clark had in his experience found teeth to decay so rapidly under wide clasps, that he was almost ashamed to use them. He endeavored to cover as little of the tooth as possible, and not to touch the neck of the tooth at all. He had seen clasps fitted very handsomely up to the edge of the tooth.

Dr. Perine said he had received a valuable hint from Dr. Crowell in making a perfect fitting clasp, and he would like to hear from him.

Dr. Crowell explained a very ingenious method he adopted, of making clasps fit perfectly to the teeth. Marking the places on the cast where he required the clasp to fit, and causing a deposit of gold or platina by means of a galvanic battery. By this plan he was enabled to deposit a perfect clasp, which would spring over the tooth, and go exactly to the place where he designed it to fit.

Dr. Stratton had been in the habit of using clasps ever since he commenced practice in 1836, and always endeavored to use as narrow a clasp as was consistent with the necessary strength. His wife had worn artificial teeth for twenty-two years, and there was one molar tooth to which a clasp had been fastened all that time, which was good. There were some teeth of so soft a nature that they never should be clasped. In such cases, teeth should be inserted on the atmospheric principle. He endeavored, in such cases, to avoid letting the clasp touch the gum, but brought the clasp as near the end or crown of the tooth as possible, and always had satisfaction in doing so. He never found a tooth to decay quickly when clasped in this manner. Was particular to make his clasp fit as snugly as possible, and explained how he made it from a plaster cast.

Dr. Roberts considered that was the only way that clasps could be made to fit properly. He was opposed to clasping at all. Perhaps he might differ from some

of the profession in this respect ; he thought that too many teeth were every year sacrificed by using clasps ; that nine cases out of ten, teeth might have been put in without them. But one main point was, *cleanliness*. Dentists were not particular enough in instructing their patients, when clasping were used, to remove often and keep the teeth free from food which collects between the teeth and clasps, and destroys the enamel. One other point in clasps was to have the plate so that it would be *perfectly* firm, and in order to do this, they should adopt a clasp according to the nature of the tooth on which it was to hold. There were circumstances that could not be arrived at except by experience and an examination of the mouth.

Dr. Hurd considered the plan a very good one, which was suggested by Dr. Crowell, for obtaining a perfect fitting clasp, but suggested some difficulties in its accomplishment, and asked how he would take the impression of the teeth that were larger at or near the grinding surfaces.

Dr. Crowell replied that he would take the impression with gutta percha—it would yield in removal, and retain the original form of the teeth.

Dr. Dodge explained a method of obtaining a good cast for fitting a clasp, by means of plaster and a little cup of heavy tin foil.

Dr. Ambler said that some remark had been made as to what was necessary to please patients. He thought the subject they had to discuss was one of merit alone—not expediency—not whether it was advisable to do this or that for the sake of the whims of patients. It was simply whether it was best to clasp teeth under certain circumstances, or not—whether clasps would be injurious or not—and if injurious how did they injure the teeth. With reference to the statement of Dr. Clark, that he never had seen a case where the grinding surface was worn by the clasp, he could say also that he had never seen one. His was attributa-

ble to the contact of the clasp with the thickest part of the enamel of the tooth, consequently, in his practice, he endeavored to clasp that part of the tooth that would resist friction the most; it was also necessary to preserve a contact with the whole surface of the tooth as much possible. He believed that teeth were injured more by narrow clasps than by wide ones.—Wide clasps wore the teeth but very little. In depositing for clasps, perhaps it was owing to some imperfection in his apparatus, he had entirely failed.

Dr. Dodge remarked he had not made a piece of artificial work in many years; referred to a case where the clasp was connected with the plate at some distance from the edge of the gums, and was worn without injury to the teeth or gums.

Dr. Perine observed that he was glad to know that the method he had adopted was practiced by others with so much satisfaction; he felt confident, where clasps were used at all that they should be adjusted on this principle.

Dr. Allen had found the method used and introduced by Dr. Gunning, of swaging plates, entirely successful. He went on at some length to explain the manner in which he managed it. He had almost given up the use of clasps.

Dr. Putnam's experience in the use of all metal clasps had been that the teeth soon became decayed. He had known hard rubber to be used very successfully by Dentists.

Dr. Allen mentioned to the members that they would be pleased or interested in learning that E. A. L. Roberts had succeeded in constructing a very powerful ox-hydrogen blow-pipe for melting platina—something which the Dentists of this city had long wanted. He had melted twenty ounces at one time.

After some further discussion, from which much practical and useful information was elicited, the com-

mittee reported for discussion at the next meeting, "The destruction of nerves, when indicated, manner of performing the operation, and subsequent operation on the root," and meeting adjourned for two weeks.

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Pursuant to adjournment, a meeting was held at the above named place, January 6th, 1858. Secretary called meeting to order. Dr. Hurd, of Williamsburgh, was called to the chair. Minutes read and adopted. Treasurer's report was accepted. The subject for the evening's discussion was read and opened by Dr. Rushmore reading the following paper :

Much has been said and written upon the treatment of exposed nerves. Many suggestions have been made from time to time, with the hope that they would lead to a radical improvement in the treatment of this class of dental maladies. Still the end has not yet been attained. The object we all have in view, perfection, is not yet within our grasp. And until this is accomplished, attentive and patient investigation, not only in this, but in every obscure and perplexing question, should engage every dentist who desires to see his profession rise until it reaches the summit of human skill. The question under discussion I conceive to be one of the most important which calls for the consideration of the dentist. Simple caries, or those not complicated with disorders of the pulp, no matter where its location, or what its character or extent, may in most instances be arrested, and the vitality of the tooth preserved. But caries of a compound character, that which in its progress has reached the pulp, baffles the most consummate skill.

The brain may be deprived of a large share of its nourishment, and yet continue to live and act. Large branches of nerves are excised, and the parts in immediate connection still perform their usual functions. But once destroy the pulp of a tooth, and sooner or

later it is attacked by disease, which, mocking at our remedies, proves its destruction. Now, why is this? Is the office or function of the pulp of a vital character, and thus absolutely necessary to the life of a tooth, so that its destruction, no matter by what process, is a death-blow; or is the failure in those cases to be looked for in the treatment pursued?

Either the presence or healthy condition of the pulp is essentially to the vitality of a tooth, or it is not. If the former, then to destroy the pulp is to destroy the tooth. If the latter, then is not the present method of treatment erroneous?

I incline to the opinion that the latter is the case. That the pulp is not of vital importance, and as a sequence to the opinion, that the employment of arsenic is highly injurious. Is not its application almost invariably followed by periostitis of a more or less violent character. Arsenic possesses the power of depriving animal tissue of its principal property which appertains to its vital condition, viz. that of suffering and effecting transformations, or, in other words, organic life is destroyed. Consequently this periosteal inflammation does not result from the effect of free arsenic, but is produced, I think, by reflex action. The reflex action of nerves is capable of transmitting all kinds of expressions or shocks to remote organs. It cannot be difficult, therefore, to conceive how the effects of an injury, such as is caused by arsenic on the pulp, may influence the vital properties of the periosteum, so as to derange its functions, and thereby constitute a local irritation in that part; and it is a maxim, that where there is irritation, there will be increased vascularity, which in time sets up an inflammatory action. This inflammatory action, it is true, may be combated, and, for the time being, may be subdued by local and constitutional treatment, but my faith in complete and ultimate success is very weak.

I have pursued the usual method of treatment, the application of arsenic, removal of the pulp, and the subsequent filling of the roots; but I cannot call to mind a single instance in which the tooth has not given unmistakeable evidences of periosteal inflammation. I do not judge wholly from my own experience, for that is in a measure limited. I may also have been at fault in performing the operations, but I have my opinion upon the evidence and experience of others, in connection with my own. I throw out these thoughts with the hope that they may call forth remarks for my enlightenment.

Dr. McIlroy remarked on the importance of the subject, and was listened to with much interest—spoke of teeth in his own mouth that had been treated and the roots filled; also presented interesting specimens of teeth that the nerves had become ossified.

Dr. Perine observed that it had been remarked by some member at the Convention at Boston, that dentists were disposed to ride a “hobby.” Said he was glad that this mode of operating was with him a hobby, and that he should continue to ride it as long as he was successful in the practice. His method of filling the roots of teeth corresponded with the mode introduced by Dr. J. S. Clark, of New Orleans. He believed it all-important to save the vitality of the pulp, but when it became necessary to extirpate the nerves, he preferred to remove, by mechanical means, when it was possible to do so, but he found his patients would not always submit to the operation. He treated abscess with creosote—also nitrate silver.

*To be continued in our next issue.*—EDS.

## SOCIETY ELECTIONS &c.

### MICHIGAN DENTAL ASSOCIATION.

The third annual meeting of the Michigan Dental Association was held at the office of Dr. Porter, in the city of Ann Arbor, on Monday, the 11th of January, 1858, at 7 o'clock P. M.

The officers elected for the ensuing year are as follows :

Dr. JOSEPH MANSFIELD, *President.*

Dr. C. B. PORTER, *Vice-President.*

Dr. A. T. METCALF, *Recording Secretary.*

Dr. S. C. WHITING, *Corresponding Secretary.*

Dr. H. BENEDICT, *Treasurer.*

One good feature was the adoption of a fee bill, which we would like to see adopted by all local societies, believing much good would result.

After the President and Vice-President's addresses, an interesting discussion ensued upon the topics presented by the Committee, but space will not permit our giving a report. The Association adjourned to meet in Detroit on the second Tuesday of January, 1859.

NOTICE.—We would call attention to the announcement of the annual meeting of the "Western Dental Society," which commences at Quincy, Ill., on the third Tuesday of July, the 20th, and not the 22d, as was by mistake announced. We would say to those who design attending the American Convention at Cincinnati, go early ! and we will assure you not only a profitable but a *good time*.

### NORTHERN OHIO DENTAL CONVENTION.

We have just returned from our attendance on the late meeting of the above convention, and desire to say a few words upon conventions in general, and this one in particular. And to begin at the end, we wish to express our thanks to our western friends for their kindly treatment, the liberal manner in which they have come forward to aid the present enterprise, and the gratification, both sensual and intellectual, which we experienced during our visit. We hope to be able, at no distant period, to reciprocate at a similar meeting in our metropolis. We should, if space permitted, take great pleasure in publishing some of the papers read before the convention.

And now a word concerning the principle upon which these meetings are instituted and supported. We have elsewhere given our voice for association, and shall always give it our support. Its beneficial effects are varied and great, not only upon the profession as increasing their knowledge, but also through them upon their patients. We earnestly counsel our friends in New-York and the East, to lose no opportunity of attending all such conventions; they will find that in the end they will be richly repaid for the slight expense of time and money.

#### ST. LOUIS DENTAL SOCIETY.

At the second annual meeting of this Society, held January 5, 1858, the following officers were elected for the year:

Dr. E. HALE, JR., *President*.  
 Dr. HY. BARRON, *Vice-President*.  
 Dr. E. H. PEEBLES, *Treasurer*.  
 Dr. D. L. LEVETT, *Secretary*.  
 Dr. ISALAH FORBES, }  
 Dr. A. M. LESLIE, } *Executive Committee*.  
 Dr. J. G. NICHOLS, }

#### WESTERN DENTAL SOCIETY.

The undersigned, a Committee appointed in May last, to prepare and announce the subjects and order of discussion at the next meeting, to commence on the 20th of July next, at Quincy, Ill., respectfully submit that the discussions come under the head of "miscellaneous business," and in the following order:

1. Difficult dentition.
2. Cause and treatment of the irregularity of the teeth.
3. Best method of treating diseased dentine when the pulp is exposed or destroyed by natural causes.
4. Filling teeth.
5. Best manner of inserting partial sets with clasps.
6. Relative merits and demerits of the various modes of constructing artificial dentures.

We respectfully urge upon members and visitors having reports of cases, casts, cuts, diagrams, or specimens of operations, or work, together with new instruments, tools, fixtures or designs, intended to promote the interests or facilitate the practice of our profession, to present them for inspection before the Society.

Come, gentlemen, let each one bring something for the good of the whole.

H. E. PEEBLES, }  
 G. H. PERINE, } *Committee*.  
 A. BLAKE, }

## AMERICAN DENTAL CONVENTION.

## SUBJECTS FOR DISCUSSION AT NEXT ANNUAL MEETING.

"The Business Committee appointed at the Convention at Boston, would respectfully present the following topics for discussion at the next Convention, to be held in Cincinnati, commencing August, 1858 :

1. The best means of securing and preserving good teeth.
2. Treatment of exposed nerves.
3. Mechanical dentistry.
4. Filling teeth.
5. Miscellaneous.

J. Taft, C. W. Spalding, C. A. Harris, E. Townsend, B. Lord, Committee."

## NORTHERN OHIO DENTAL CONVENTION.

## OFFICERS.

B. STRICKLAND, *President*.

S. P. HUNTINGTON, *Vice-President*.

C. R. BUTLER, *Recording Secretary*.

B. F. ROBINSON, *Treasurer and Corresponding Secretary*.

## NORTH CAROLINA STATE DENTAL SOCIETY.

The next meeting of this Society will take place at Charlotte, on the last Wednesday of September, 1858.

## OFFICERS.

Dr. E. H. ANDREWS, *President*.

Dr. D. P. GREGG, *Vice-President*.

Dr. D. W. C. BENBOW, *Secretary*.

Dr. HUBBARD, *Treasurer*.

## REVIEWS.

We have on our table the first number of the "Dental Reporter," edited by Jno. T. Toland, and published quarterly at Cincinnati, for 25 cents per annum in advance. The present number appears to be a selection from various sources, and a medium for advertising the editor and publisher's wares ; if it does not promise much, it certainly executes what it does promise, and will not make a very severe demand upon the purses of the profession.

We have also received No. 1 of the "American Dental Review," edited by A. M. Leslie, D. D. S., at St. Louis. This is also a quarterly, and is becoming favorably known in the profession. Dr. Leslie is well known as a scientific man, and pos-

sesses the valuable ability of expressing his ideas clearly and concisely. The February number of the "Review" contains several accounts of cases, transactions of societies, &c., &c. Dr. Peebles, on Dental Essays, expresses our own views fully; his suggestions are valuable. The article on Clasps, by C. W. Spalding, D. D. S., gives no new information, at least to us at the East; the form of clasps he mentions having been introduced here some years ago. Where clasps must be used we fully approve of this method. We should be happy to mention particularly several other articles in this issue, but time and space forbid. The "Review" promises well, while its terms, (50 cents per annum, in advance,) are reasonable enough to satisfy all.

We have also before us two specimens of Registers for Dental Operations. One by G. H. Waters, D. D. S., we have used for a number of years, with complete satisfaction. A copy of a similar work, by Dr. F. H. Clark, of New York, differs from the former, in that it admits of locating operations in any part, the plates giving a more comprehensive and complete view of the jaws.

We have also received from Dr. J. F. Whitman a Book of Receipts, comprising also a complete record of artificial work performed upon patients, and showing at a glance the number of teeth inserted, material used, expense, &c. This work will be found useful to every operator. Price \$1.

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## EDITORIALS AND CUTTINGS.

### THE NEW YORK COLLEGE OF DENTAL SURGEONS.

A petition for a charter for the above institution has been presented to the Legislature. By the exertions of the Committee appointed by the New York Society, it has fallen dead, "never to rise again." The bill incorporated parties whose names are entirely unknown to the profession, and was so evidently "bogus," that no financiering could crowd it through. We recently had an interview with Dr. Wescott, of Syracuse, who proposes to transfer the Syracuse charter to New York, whenever the profession here are prepared to receive. The necessity of such an institution cannot be denied, and the advantages of this mode of

procedure are many and great. Are we not already prepared for it? Let the profession stir in the matter!

In the month of November, 1857, a general invitation was issued to the profession in New York and vicinity, to attend a meeting at No. 57 Bond street, to consult upon and advance the general interests of the science. The meetings thus inaugurated, continued to be held during the winter, and were attended by a large number of the profession; papers were read, discussions were conducted, and a free expression of opinion invited and encouraged by all. These meetings were productive of much good, and we hope to see them continued during the present season. A society should be organized, and we have no doubt will be, its advantages are so prominent, and its usefulness so undoubted. Two heads are better than one, and many heads are better than two, always allowing that the heads contain brains; an interchange of ideas, while it establishes an immediate and active good, also leads to much in the future, being suggestive of other ideas, and introducing new trains of thought. Success to the principle of Association!

We would call especial attention to the advertisement in this number of the JOURNAL, of Mr. J. D. Chevalier. It will be seen that he offers special inducements to the profession.

Those of the profession who are working the platina or Allen style of artificial work, will be pleased to know that their platina may be refined and pressed in plates by E. A. L. Roberts, No. 55 Bond street, and at rates which will satisfy all. We refer to his advertisement.

We take pleasure in informing the profession that the platina backed teeth, invented by Dr. Bradish, of Utica, N. Y., are being manufactured in this city by Dr. J. W. Crowell. They are too well known to need further comment from us.

#### REMARKABLE FREAK OF DENTAL DISEASE.

Dr. William Clough, Dentist, of Pittsfield, Mass., lately extracted from the jaws of a young lady, twenty-two years of age, two molar teeth, each presenting the remarkable phenomenon of a pearly substance growing from the edge of the gum. These pearls are perfect in form and pure in quality, possessing, however, no brilliancy. One of the teeth, with the pearl, can be seen by applying to the Editors of the DENTAL JOURNAL.

**A FRENCH DENTIST.**—Public schools are found to be a capital quarry for the supply of available teeth; a dentist from Caen having gone to St. Etienne, and presenting himself as a public health officer commissioned to inspect the sanitary state of the

boys, extracted 260 capital new teeth among some bad ones, and levanted with the valuable booty.

 The citizens of Waterbury, Conn., were nicely sold last week, by two chaps who were vending what they represented as a splendid article of tooth-wash, and which "went off like hot cakes" at one dollar a bottle. A dentist subsequently discovered that it was nothing more nor less than nitric acid, with just enough oil of cinnamon to give it a pleasant taste and smell. Of course this preparation will clean the teeth in double quick time, but the trouble is that after a few applications there will be no teeth to clean, they will be entirely "cleaned out."

 A dentist in the south of France dispenses with chloroform, having a young poet in his train, who fulfils the office which is given to it—that of beguiling the sufferer of pain. He recites his own compositions during the operation, love stories, fables, &c., &c. The attraction of the youthful *improvisatore* is said to assist greatly in the drawing of the teeth.

 A new process of extracting teeth has been tried in Baltimore with success. All that was felt was a numbing sensation about the teeth, produced by passing a current of electricity through the tooth at the time of extracting. The patient grasps firmly in his hand one pole from an electro-magnetic machine, the other pole is attached to the forceps, and by this means a current of electricity is passed through the tooth, and produces a local anæsthesia, and so avoids the use of chloroform or ether.

 Death from a singular cause occurred in Philadelphia, last week. A man was leading a horse, and the animal becoming restive, he struck it in the mouth with the back of his hand, which was punctured by coming in contact with a tooth. The hand soon after began to swell, and the inflammation increased up the arm to the shoulder, and the symptoms became alarming. Lockjaw ensued, which resulted in death.

FIVE CHILDREN AT ONE BIRTH.—On the morning of Monday week, a woman of the name of Elspot Gordon, residing in Rothés, gave birth to three male and two female children. The three boys were born alive and lived till the following morning, but the two girls were still-born. The births were premature, being in the sixth month; but, what is very extraordinary, all were full grown for the period of gestation; nor is this the most surprising circumstance in the case, one of the boys having actually *two front teeth* when he came into the world. Dr. Dawson, of Rothés, attended the woman, who, we are happy to say, is doing wonderfully well.—*Elgin (Scotland) Courant*.

We cannot forbear giving our assistance in spreading a joke where it is good, and while we do not by any means endorse the

sentiment of the following "clipping" from the N. Y. Sunday Dispatch, we wish others to have as comfortable a laugh over it as we had. We are certain that the gentlemen who are the inventors of the system satirized, will have philosophy enough to take the joke as it is meant.

"The members of the minor branch of Medico-surgical Science, will be found to be following in the footsteps of the illustrious higher branches of the learned profession. We allude to the Professors (!) of Dentistry, a peck of whom—who, from their excessive increase of number, must now be taken by their measure rather than counted upon their merits—met at 2051 Pully-haully street, in a neighboring vicinity, to experiment on a few unfortunate, but morally guilty, wretches; of the offence of being victims to that curse of human afflictions—the '*toothache*!' The newly-invented instrument experimented with by these Mechanico-Surgico-Philosophical men of science, in their search under the most painful—to their poor victims—difficulties, was—pause gentle reader, and hold your breath, while we state the name of this wonderful instrument—it was nothing less than A COMPOUND-ELECTRIC-ANTIPAIN-MAGNETIC-PAINLESS-TOOTH-EXTRACTING FORCEPS! The "cold water," or "freezing," or, "benumbing!" humbug having been 'played out'—something NEW!! was desirable, hence the meeting of Modern Science—hence the birth of this new and formidable-named Forceps! This wonderful instrument differs widely from the 'ROYAL TOOTH-EXTRACTING CHAIR!' introduced, by a French dentist, a few years since, to the notice, and a very few jaws of the benighted republican simplicity of the American people. This 'royal chair' was made with an iron gibbet, projecting up and over the patient's head, from the chair's back. From the end of the gibbet was pending a chain, with grasping 'claws' at its end; these claws were made secure to the offending tooth, when lo! the operator touched a spring, *supporting the seat*, and let the patient drop, after the most approved principle of dropping malefactors before Newgate. In the case of one unfortunate lady, she hung by the tooth, and struggled hard to be released. This caused the too sensitive lady to give out to a too-credulous public that the Frenchman had intended improper liberties with her. From that moment the 'Royal Tooth-Extracting Chair' received its *coup de grace* in the estimation of the tooth-extracting seeking portion of the public.

"Now we have a peck of dental savans meeting at No. 2051 Pully-haully street, to experiment with the novel instrument—the compound electric antipain, magnetic, painless, tooth-extracting forceps. The practical result of their experiment will answer for its importance as a new phase in mechanico-philosophical surgical science.

Victim No. 1—Biddy O'Donohue was seated in the operating chair. The forceps attached to a galvanic battery by the usual galvanic 'poles' or wires, isolated from the operator's hands by a nonconducting gutta-percha covering, is applied to Biddy's tooth, and the galvanic shock is applied. Poor Biddy, if not knocked into a cocked hat, is stupefied with the electro-galvanism applied to her head, shrieks with terror—a wrench and the tooth is out, and Biddy howls from pain. She is dismissed and told to 'keep her mouth shut' to keep out the cold.

"Victim No. 2—Bridget Murphy. Second dental savan operates. Galvanic shock—she don't know whether she stands on her head or whether she is dead. Bridget in terror and cold sweat—a wrench at the tooth—did not accept the invitation to vacate the premises—sobbing, crying and fainting, she submits to another electro-galvanic shock and wrench at the tooth—she is carried into the next room in an insensible state—tooth remains in her head.

"Victim No. 3—Mary Malone. Electro-galvanic shock by third dental Savan—not quite ready. Mary turns ashy pale with premonitory symptoms of 'hysterics;' second shock too soon—Mary begins to scream; third shock and the tooth and Mary go off, Mary in a paroxysm of hysterics and the tooth borne away as an electro-galvanic trophy.

"But why proceed with the misfortunes and torturings of the too-confiding Biddies. Have not the dental savans made their experiments? Will not the public be made cognizant of the wonders of this instrument? We hope that no duel—no blood-shed beyond that shed in the above victims—will be brought about by the claimants as to whom the honor is due for the discovery and introduction of this wonderful dental forceps. Yours, &c.

MAWLEY TUGEM, D. D. S.

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We received the proof sheets of the minutes and discussions of the Northern Ohio Dental Convention, from Drs. Taft and Watt, but press of matter prevents our making use of it in this number. We hope to reciprocate ere long.—Eds.

THE  
New-York  
DENTAL JOURNAL.

OCTOBER, 1858.

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HOW THE TEETH ARE DESTROYED.  
BANEFUL EFFECTS OF SALERATUS AND CREAM OF  
TARTAR UPON THE TEETH.

Our readers will doubtless remember a paper read before the Convention at Boston last summer, on the effect of saleratus and cream of tartar upon the teeth; by Dr. S. Baker of Portsmouth, N. H., which was copied by the N. Y. Tribune from the Portsmouth Journal. We give below a reply to the above article, written by Prof. A. Westcott of Syracuse. The scientific knowledge displayed in this article is such that we consider its circulation in the profession will be of service to its members, and therefore present it entire, as copied from the N. Y. Tribune of July 9th.—Eds.

The author, a Mr. Baker, (whether doctor, dentist, or divine does not appear), thus commences his essay: "As a subject generally interesting and important to the public, I venture to offer some views of my own and others in regard to the articles that head this communication."

This subject is indeed an important one, in any point of view, interesting every individual in every commu-

nity, when considered simply with reference to the teeth; but if the views entertained by Mr. Baker, as set forth in his article, are correct, it is pre-eminently so, for he not only contends that these substances which are in general use in cookery are universal tooth destroyers, but that they are also equally active in undermining the general health, nay, that "they are both *acrid poisons*."

But as the article in question was evidently written to show "how the teeth are destroyed," I shall confine my review to the dental branch of the subject, leaving the rest to be settled by the various interested parties along the line—from the baker to the undertaker. In reference then to the "baneful effects of saleratus and cream of tartar" upon the teeth, and to which Mr. Baker unhesitatingly ascribes their premature destruction in this country, I will say that, after having carefully read his article and examined his alleged facts, I have yet to see in them the first shadow of proof in support of his remarkable theory.

Before entering, however, upon any direct examination of this subject, as it will appear in the light of *facts* and science, I beg leave to enter my protest against the author's mode of reasoning upon any scientific subject. The first item of evidence which he offers to sustain his position is the following quotation from the "popular work" of Mrs. Stowe :

"How comes it that our married ladies dwindle, fade and grow thin—their noses incline to sharpness, and their elbows to angularity," &c., at a certain period of their lives? As a matter of merest conjecture she adds, "Have not our close-heated stove-rooms something to do with it? Have not the immense amount of hot biscuits, hot corn-cakes, and other compounds got up with the acrid poisons of saleratus, something to do with it?"

Now, what assistance this quotation can afford Mr. Baker in establishing his theory, of dental caries, I am

at a loss to determine, and I think it will puzzle him to point out any special connection between "angular elbows, sharp noses" and decayed teeth, unless he reverse his reasoning and make the first two consequent upon the last. But had this conjecture of Mrs. Stowe's pointed directly to the teeth instead of the nose, it would still have been conjecture, and nothing else, and entitled to no more weight than any other conjecture from a lady of though great general intelligence, yet not even professing to have any knowledge of this scientific topic.

Questions so purely scientific are not to be settled by the dictum or the opinion, much less by the conjecture, of persons however talented or learned in other matters, but who may be profoundly ignorant of this special department of science; and the practice, which is quite too common, of quoting the opinions of eminent persons merely because of their eminence, cannot be too strongly deprecated. The world is full and running over with senseless dogmas and prejudices which obtained their footing in this way, and which depend for the influence which they exert wholly upon their eminent origin. The next witness introduced by Mr. Baker speaks more directly to the point, and is no less a man than the editor of *The Boston Transcript*. He gives it as his positive *opinion* that it is cream of tartar, carbonate of soda and saleratus "which is the cause of our young men and women having decayed teeth." Will this gentleman, who is so ready with an *opinion*, inform us *how* these articles ruin teeth—whether by direct effect upon these organs, acting upon them while in the mouth, on their way to the stomach? or are they taken up by the circulating fluids, and act upon the teeth through the general system? Will he inform us why these two substances, an acid and an alkali, are always used in connection in cooking, and what is the result of this connection?

If our friend is as expert in the chemical laboratory as in the editorial chair, he will find by mixing in proper quantities cream of tartar with either carbonate of soda or saleratus, that the result will be a neutral compound, which is as inert, so far as the teeth are concerned, as so much chalk. He will find that because the component parts of a compound are acrid in their nature, it by no means follows that the compound is so, or that it partakes in the least degree of the character of either constituent. Plaster of paris, for example, is composed of lime and sulphuric acid, (oil of vitriol,) and while neither of its elements can be taken into the mouth or stomach without the most serious consequences, the compound is wholly inert and harmless. If he extend his examination to the composition and structure of the teeth themselves, he will conclude that if these articles injure the teeth at all, their "baneful effects" must be exerted directly; for finding, as he will, that the enamel is made up, for all practical purposes, solely of mineral matter, and has not the slightest circulation, he will conclude that this portion of the tooth (which is the surrounding and shield to all the rest) is neither capable of benefit nor injury through the medium of the circulation. When his examination is directed to the *bone* of the tooth, underneath the enamel, he will find that the chances for reaching its substance through any vessels with which this structure is endowed not to be materially enhanced, for the circulation of the blood in the bone of a tooth is so slight as to require extraordinary circumstances to prove its existence. But even supposing it possible to communicate into the substance of the *bone* of a tooth this "baneful effect of saleratus," &c., so as to produce decay, what follows? Where would the decay be found? Evidently *on the inside* of the tooth, under the enamel. In other words, it would be an example of *internal* decay, thus involving a theory long since discarded by every intelligent den-

tist. If he extend his investigation still further, he will find the universal law of the system to be, that those parts which are the most vascular are the most liable to be effected through the agency of the circulation; and as the bones of the general system are a thousand times more vascular than tooth-bone, the former (upon the above theory) we would naturally expect to find, in the same ratio, more subject to disease; whereas for every case of carious bone, of the general system, we find ten thousand cases of carious teeth. In short, after he had investigated the entire subject so thoroughly as to be qualified to give an opinion which might be safely adopted by the public generally, he doubtless could and would give some better grounds for it than the only one offered by him, viz., that the French eat less saleratus than we do, and the French have better teeth; ergo, saleratus destroys our teeth. Would it not be equally good logic to say, the French drink less bad whisky than we do, and the French have sounder teeth; ergo, bad whisky is what destroys our teeth?

Mr. Baker also quotes the opinion of several doctors, to the effect that a number of students of Williamstown were made sick by eating warm biscuits and puddings "so filled with saleratus as not only to give them a yellow or burnt appearance, but also to render them bitter and nauseous to the taste." This witness further states that "after thus living for a few *months* a disease broke out, which was so severe that many believed it to be contagious." Upon this case no comment is necessary, and why is it lugged into an article whose aim is to show that saleratus destroys teeth, I shall leave the reader to conjecture. But Mr. Baker himself does not seem quite satisfied with the testimony above referred to, and hence he, as he informs us, has resorted to experiment. Now, this is doing something in the right direction—far better than to quote the opinion or conjecture of those who can-

not be supposed to have any special knowledge upon this difficult subject. He says, "I subjected a handful of teeth to a strong and warm solution of saleratus for about fourteen days; the consequence was they became as brittle as burnt bones. At the same time I subjected some to a solution of cream of tartar; the consequence was not the same, but equally if not more injurious." Now, admitting the "consequences" in the above experiments to be as stated with reference to each article separately, I would ask Mr. B. if the inference which he draws with reference to them when united, as they always are in cooking, is correct? He has overlooked the vital fact that the two have been united; that a play of affinities has occurred during the process of raising and baking the dough that has resulted in an entire different substance from either saleratus or cream of tartar. The result, as I have already stated, is a neutral salt, perfectly harmless, so far as the teeth are concerned, and in no case would it be possible to get the separate effect of either, in cooking, unless the one or the other were used in excess—more than could be neutralized by the other. The process of raising dough by an alkali (which must always be a carbonate) and an acid is at once simple and beautiful. The only condition necessary in the choice of an acid, when either saleratus (super carbonate of potassa) or carbonate of soda is used, is to select one which will decompose these carbonates, and unite with their base, and form with said base a harmless salt. Sour cream, as every cook knows, is often substituted for cream of tartar. These opposite elements are so mixed with the dough that we may suppose a particle of each is resting, side by side, in every supposable point in the batch. As soon as the lump is subjected to a proper heat the decomposition and recombination begins—each particle of acid seizing and uniting with a particle of carbonated alkali, and excluding in a gaseous form its carbonic acid,

which, in its attempt to escape, forms an "air cell" in the loaf. A multiplication of these air cells thus formed gives lightness to the lump. When the bread is baked, if the saleratus and cream of tartar were used in the right proportions, there does not remain a particle of either as such. The carbonic acid of the saleratus has been expelled, and the excess of acid in the cream of tartar has united with the potassa of the saleratus and formed a neutral compound of tartrate of potassa, which is wholly inert as regards the teeth, both directly and indirectly.

Will Mr. Baker, in view of the above facts, please inform us what has become of his experiments, or rather show us their utility in reference to the articles tested, when used in cooking? He clearly having tested the wrong compound, whatever the result may have been, it has no bearing whatever upon the object aimed at. The destructive effect of cream of tartar, when directly applied to the teeth, is by no means overrated by Mr. B. There is scarcely any acid which acts more promptly in decomposing and dissolving the enamel of a tooth, but his experiments with saleratus could not have been carefully made; certainly his record and my own, made of experiments conducted with the utmost care, do not correspond. I have yet to be convinced that saleratus decomposes or dissolves the *enamel* of a tooth. Tooth-bone, which constitutes the greatest bulk of a tooth, consists (by weight) of nearly equal parts of earthy matter—phosphate and carbonate of lime—and animal matter. All alkalies have an affinity for the animal matter, but not for the earthy. The enamel, as above stated, contains hardly a trace of animal matter, and is scarcely affected by the most concentrated alkali—even caustic potash has little or no effect upon it. In the Summer of 1843, I conducted a series of experiments, assisted by Dr. Wm. Dalrymple (now of Bond street, New York), with the view to ascertain the precise effect of every

substance liable to be brought in contact with the teeth, and which I have several times repeated and varied in different ways, that the result might not be deceptive, and which, instead of being confined to *two* articles, included between one and two hundred different substances. I find no such record as that made by Mr. Baker in regard to saleratus. These experiments were continued for four months, each tooth examined every forty eight hours, and the effect upon it carefully recorded. In order to be more positive, if possible, in regard to the neutral salt, tartrate of potassa (which must not be confounded with super tartrate of potassa, or cream of tartar, which latter has a large excess of free tartaric acid), I have, since the appearance of Mr. B.'s article in the *Tribune*, most thoroughly tested its effects upon the human teeth, and the result not only corresponds with the original record above alluded to, but fully justifies the renewal of the assertion, that this neutral salt has no effect whatever upon the teeth. Now, for the benefit of those who may have the curiosity to examine this subject, I will give a brief summary of the result of the original experiments as recorded in 1843, which is as follows :

*First*: Acids, both vegetable and mineral, act readily upon the bone and enamel of the teeth.

*Second*: Alkalies do not act upon the enamel of the teeth, though the strongest of these, caustic potash, readily destroys the bone of the tooth by uniting with its animal matter.

*Third*: Neutral salts have no effect upon the teeth, unless the acid of the salt has a stronger affinity for the lime of the tooth than for its own base ; but when this is the case, the acid leaves its former base and unites with the earthy matter of the tooth, resulting in its decomposition and destruction. We have a most extraordinary example illustrating this principle in the effect of alum upon the teeth. The effect of this substance (which is a sulphate of alumni and potassa, and

which contains no *free* acid) is most destructive, wholly destroying the enamel in a few days. This result can only be accounted for on the supposition that the alum is decomposed—its sulphuric acid uniting with the lime of the tooth.

*Fourth:* Super salts, or those which contain a free acid, have the same effect upon the teeth as their acids would have, uncombined with a base. Cream of tartar (super tartrate of potassa), for example, destroys the enamel of a tooth very readily, and probably with equal promptness as if the pure tartaric acid were employed, uncombined with a base. The frequent use of this acid salt in medicine, and to form acidulated drinks, renders a knowledge of its real character in reference to the teeth of great importance.

*Fifth:* Vegetable substances, not acid, have no effect upon the teeth, unless by fermentation acid is formed, in which case the (acetic) acid would of course produce the same mischief as when derived from any other source.

*Sixth:* Animal substances, even while in a state of confined putrefaction, act very tardily, if at all, upon either the bone or enamel. On examining the teeth subjected to such influence, the twentieth day of the experiment, no visible phenomena were presented, except a slight deposit upon the surface, of a greenish, slimy matter, somewhat resembling the green tartar often found upon the teeth in the mouth.

To give a more definite idea of the deleterious agents to which the teeth are exposed, and the consequent liability to be affected by them, I will notice the effect produced by a few of the individual substances which are more or less liable to be brought in contact with the teeth.

Acetic and citric acids so corroded the enamel in forty eight hours that much of it was easily removed with the finger-nail. Acetic acid, or common vinegar, is not only in common use as a condiment, but is

formed in the mouth whenever substances liable to fermentation are suffered to remain about the teeth for any considerable length of time.

Citric acid or lemon juice, though less frequently brought in contact with the teeth, acts upon them still more readily.

Mallic acid, or the acid of apples, in its concentrated state, also acts promptly upon the teeth.

Muriatic, sulphuric and nitric acids, though largely diluted, soon decompose the teeth. These are in common use as tonics.

Sulphuric and nitric ethers have a similar deleterious effect, as also spirits of niter. These are common diffusable stimulants in sickness.

Raisins so corroded the enamel in twenty-four hours that its surface presented the appearance and was of the consistency of chalk. This remarkably destructive effect of raisins upon the teeth will be readily understood by those who are familiar with the chemical and commercial history of cream of tartar. This substance exists ready formed in the juice of the grape, and is deposited as alcohol (in which it is insoluble) is formed during the process of fermentation; so that in the casks used for this purpose a cake of crude tartar is deposited. This purified is the cream of tartar of commerce. When the grapes are prepared as raisins this substance is of course retained, and is what gives that peculiar acid flavor to this fruit in the form of raisins, and at the same time renders raisins so destructive to the teeth.

Sugar as such does not in the least affect the teeth: but as it promotes the fermentation of other vegetable substances which may be about and especially between teeth, the acetic acid which would thus be formed would prove an active source of decay.

Teeth placed in calomel (which was made of the consistency of cream by mixing it with water) came out at the end of four months as bright and sound as

when they were placed in it; proving most conclusively that the direct effect of this substance, when injuriously affecting the teeth, is confined wholly and exclusively to the parts investing these organs, and hence does not act except indirectly in the destruction of the teeth.

From the above facts and considerations I think every intelligent reader will conclude that the theory sought to be established by Mr. Baker, viz., that saleratus and cream of tartar, *as used in cooking*, are the chief agents in producing the proverbial rottenness of the teeth of Americans, is without the least foundation in fact, and that, on the other hand, they have little or nothing to do in securing this lamentable result—while at the same time they do point directly to many of the agencies by which the teeth are in fact destroyed.

With the hope that the above facts and considerations may not only do something to correct a mischievous error, but also furnish some hints which may be beneficial to the community at large, I beg leave, through your widely circulated paper, to submit them to the public.

A. WESTCOTT, M. D., D. D. S.

SYRACUSE, JUNE, 1858.

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## SALERATUS AND THE TEETH.

FROM THE N. Y. TRIBUNE.

SIR: So much has been said of the injurious effect produced on the teeth by saleratus, soda and cream tartar used in bread, that I trust you will allow me to reply to Mr. Baker's article on the subject. Saleratus

is a bicarbonate of potash; baking soda is a bicarbonate of soda. When either of these is brought into contact with cream tartar (which is a bitartrate of potash), mutual decomposition ensues, the carbonic acid gas of the alkali is replaced by the second equivalent of acid in the cream tartar, and we have the neutral tartrate of potash or soda. If sour milk is used instead of cream tartar, neutral lactates are formed. These substances ought to be used in their combining proportions, but in ordinary practice a slight excess of acid is generally used, for a very minute excess of alkali will spoil the color and taste of the baked bread. From this statement it is evident that saleratus, soda and cream tartar never enter the mouth at all, or only occasionally in very minute quantities. Perhaps it will be said this minute quantity may be sufficient to produce the injury complained of. But there is no foundation for this opinion, for the teeth of negroes are remarkably sound, and yet they use their full proportion of these articles. Again we know that the teeth of the ancient Britons did not decay, for they are to be found perfectly sound to this day in skulls which were interred in the days of Julius Cæsar in the tumuli which are found in various parts of England, while the teeth of the modern inhabitants of that country are very defective, although fifteen years ago the use of saleratus, &c., was entirely unknown to the mass of the people. Thus we see the teeth of the people of England and of many in this country who do not use saleratus, decay, while those of negroes who use it largely, and sometimes unneutralized, do not decay; it is therefore certain the rotten teeth of the moderns are not produced by saleratus, and we can go further yet, for we have conclusive proof that alkalies are not poisonous to the general system in the fact of all fresh milk being slightly alkaline. The opponents of saleratus must certainly have overlooked or been ignorant of the fact that the mildest, and most easily digestible food for the young, the weak and the delicate is alkaline.

As to cream tartar being unwholesome, I presume it is only necessary to say that it is obtained from grapes precisely in the condition in which we use it. The pleasant acid of this most delicious and most valuable fruit is due to this substance.

Although it is absurd to discard alkalies as poisonous, it is a fact that when used in such excess as to render the fluids of the stomach alkaline, they are injurious (as is excess in the use of any article of food), therefore I would advise persons of weak digestion to be cautious in the use of it, and never eat much molasses cake and sugar crackers, as they generally contain unneutralized alkali, its disagreeable taste being covered by the sweetening.

C. DOWDEN.

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## IRREGULARITY OF THE TEETH.

BY DR. N. W. KINGSLEY.

DR. PERINE :—In compliance with your solicitation, I send you a report of the treatment of a case of irregularity, and hoping I may not fall into the common error of building up a beautiful theory, and warping facts to support it, I will proceed at once with my subject.

Miss T., aged fifteen, of delicate constitution, face thin and pointed ; teeth in the upper jaw very much crowded, every one of them misplaced ; the canine of one side and first bicuspid of the other missing, having been extracted to correct the irregularity some time before I was consulted, (remarks on the propri-

ety of such a course in another part of this article ;) the molars and bicuspid articulating inside of the lower ones ; the distance across the jaw between the second bicuspid, by actual measurement, *five-eighths of an inch*. Gums spongy, on one side swollen, and almost covering the molars and bicuspid, and constantly irritated on the labial side by contact with the lower teeth at each occlusion of the jaws.

After treatment two months and ten days, it presented the following appearance : Gums healthy, articulation of the teeth correct, cheeks very much fuller, an entire change of expression about the mouth. A reference to the accompanying diagrams will give a perfectly correct idea of their position before and after treatment. The size and relative position in the drawing is intended to be accurate.

By careful measurement I find the enlargement of space between the teeth to be as follows, viz. :

|                                                    |   |                               |    |    |   |
|----------------------------------------------------|---|-------------------------------|----|----|---|
| Between the second bicuspid, increase 60 per cent. |   |                               |    |    |   |
| "                                                  | " | lateral incisors,             | "  | 56 | " |
| "                                                  | " | first molars,                 | "  | 50 | " |
| "                                                  | " | right central & left lateral, | 50 | "  | " |
| "                                                  | " | " 1st bicuspid & "            | 50 | "  | " |

I have used the term per cent. as the most appropriate to convey comparative distances. The reader will readily understand that 100 per cent. would make the space just twice as great as before.

#### TREATMENT.

A hickory stick, well known to the profession as pivot wood, of proper length, was first placed across the mouth, forced between the second bicuspid, that being the point at which the greatest expansion of the jaw was required. This was renewed daily, forcing in a longer one each time.

Another was added after a few days between the right first bicuspid and left lateral incisor, also changed

from day to day. Three to four weeks sufficed to force them out all that was desirable. A gold band was then bent to a comparatively true curve, reaching from molar, resting on the labial surfaces around to molar, and tied with floss silk to those teeth which had been forced into position by the braces ; the braces still remaining to keep them in their place. Elastic rings were cut from small rubber tubing, and slipped over the remaining teeth and drawn outward, and tied to the gold band. After a few days the braces were removed, the band acting upon the teeth in a manner to hold them without the aid of the braces ; the band was removed, new ligatures applied, and the teeth cleansed thoroughly twice or three times a week, Reynolds' Dental Detergent used daily as a mouth wash. From four to five weeks brought the teeth all into a good position. A plate was then fitted to a model, obtained in the usual manner, extending back to the molars and across the palatine arch, and tied to the bicuspid. This was worn from three to four months, until the parts became settled and firm.

The final result was most gratifying to the patient, her friends and the operator. Order and beauty of arrangement taking the place of what resembled a mass of ruins.

In remarking upon this subject, I cannot avoid contrasting the plan of using braces and ligatures with the inclined plane, which, until quite recently, was the almost universal recourse with the few who attempted the correction of irregularities. From the supervision of a large number of cases, and the observation of its action and results in others, I am led to believe the inclined plane defeats its own purpose. Its action is well known ; its intention is to strike the offending tooth at every occlusion of the jaw, and thus force them into position. But as the class of patients requiring treatment is confined to youth, the teeth in a few hours become tender to the touch, when they

will sooner go without masticating their food than strike them with sufficient force to produce any movement. And unless all the masticating teeth of one jaw are covered and very accurately articulated to the others, a worse result is more than likely to happen, viz., elongation of the molars and bicuspid, and entire change of articulation.

Neither do I regard it as necessary that blocks should be built on the molars to masticate upon, in a case, for instance, where the superior incisors close within the inferior; but a very few days is required in the passing over, when the molars would be required to be kept apart, and there will always be more or less tenderness of those teeth firmly braced, which will prevent the patient from biting with sufficient force upon them to drive them back. A patient would not acquire sufficient command of masticators in so short a time to make them of any material service. Neither would I approve, except in rare instances, of the extraction of permanent teeth that stand out of the arch, because the arch is nearly full without them. In a majority of cases the jaw can be expanded, and they restored to their normal position. I believe nature to be the best model we can follow, and no one can doubt but it is her intention, and, as a general rule, most conducive to the beauty of the individual, that all the permanent teeth should stand in the arch.

In these days of the rapid increase in the number of those who require the skill of the Dentist in developing the beauty of the permanent teeth, it becomes us as a profession to bring to our aid all the resources of science and art.

It is surprising the vast amount of culpable ignorance daily and practically displayed by the profession, even in regard to the development of the permanent teeth.

“Removing temporary teeth to make room,” has been the cause of more irregularities than Dame Nature was ever guilty of.

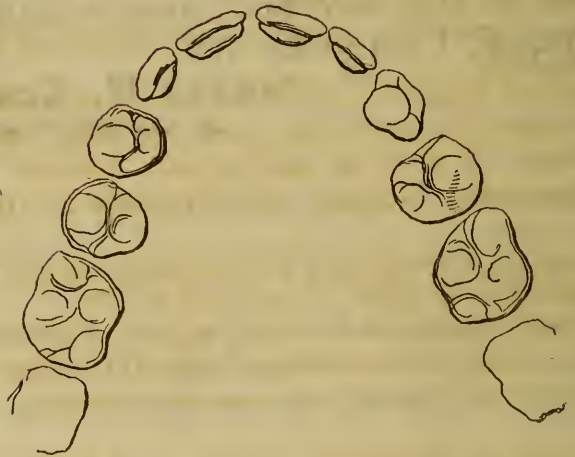
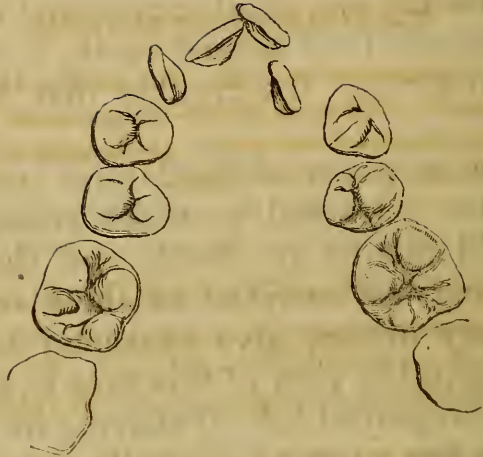
It is not twenty-four hours since my attention was called to a very interesting little girl, of five years of age, who has had her incisors extracted some time since, "so that her permanent teeth may not come in crooked." To any one at all acquainted with the order of developement of the second teeth, it needs no prophet's eye to foresee the trouble that is to follow in that case.

Before the eruption of the lateral incisors, "more teeth must be extracted to make room," and so on until the child cuts its eye teeth, and the parents cut theirs in seeing the sacrifice of those organs, which, more than any others, give character to the mouth. The most charitable view of this case is, that the Dentist who was employed left off shaving his patrons with a razor but a few years to shave them in another profession, and, therefore, could not be expected to know better—another instance of the beauty of democracy in the Dental profession.

Begging your indulgence for occupying so much of your space in this, my first communication to any Dental Journal, I am yours, &c.,

NORMAN W. KINGSLEY.

28 East 20th Street, New York.



## BIBLIOTHECA ODONTALOGICA,

ALLEN, CHARLES.—Operator for the teeth. 4to, Dublin, 1687.

ARTHUR, R.—A popular treatise on diseases of the teeth; with description of their structure and modes of treatment. Usual mode of inserting artificial teeth, 28 illustrations, 12mo, Philadelphia.

## B.

BALLIF, P.—Anleitung zur Pflege und Erhaltung der Zähne, 8vo, Berlin, 1822.

Description des pluseurs obturateurs inventés, Avec. 8pl., 8vo, Berlin, 1825.

BAUHNUS, HIERONYMUS,—De Odontalgia, 4to, Basil, 1660.

BEAUPREAU.—Dissertation sur la propriété et la conservation des dents. 8vo, Paris, 1764.

Lettre à M. Cochois sur le traité des maladies du sinus maxillaire. 12mo, Paris, 1769.

BECKER, GODFRIEDT WILHELM.—Ueber die Zähne und die sichersten mittel, sie bis zum höchsten. Alter rein, weiss, gesund und von Schmerzen frei zu erhalten. 2 Aufl., 8vo, Leipzig, 1812.

Der Zahnarzt für das weiblicher Geschlecht. Nach der Französisch des Joseph Le Maire. 8vo, Leipzig, 1820.

BELL, THOMAS.—The anatomy, physiology and diseases of the teeth. 8vo, Philadelphia, 1851.

Der vollkommene Zahnarzt oder die Lehre vom Leben, den Krankheiten und den mechanischen Hilfsmitteln zum Ersatz der Zähne. Nach der Französisch des Maury. D. Engl. mit zusätzen nach Linderer. Herausgegeben von einem praktischen Zahnarzte. Mit 42 küpfertafeln. Gr. 8vo, Ebend., 1835.

BENNET, WILLIAM,—A dissertation on the teeth and gums and the several disorders to which they are liable. 12mo, London, 1778.

BERDMORE, THOMAS.—Treatise on the teeth; an account of their structure; the cause of their disease; the most effectual method of healing the disorders of the teeth and gums, illustrated with cases and experiments. 8vo, London, 1768--70.

Abhandlung von den Krankheiten der Zähne und des Zahnfleisches. Aus dem Englischen. 8vo, Altenburg, 1771.

Also, an edition in Dutch. Amsterdam, 1769.

BEURLIN, RUDOLF PHILIPP.—Disputatio de dentitione difficili, &c. 4to, Altdorf, 1720.

BLAINVILLE, DUCROTAY DE.—Ostéographie, ou description iconographique du squelette et du système dentaire des cinq classes d'animaux vertébrés. 4to, Paris, 1839.

- BLAKE, ROBERT.—An essay on the structure and formation of the teeth in man and various other animals. Nine plates. 8vo, Dublin, 1801.
- BLANDIN, PH. FRED.—Anatomie du Système Dentaire, considérée dans l'homme et les animaux. 8vo, Paris, 1836.
- BLUME, E.—Der praktische Zahnarzt oder kurzgefasste, Lehre der gesammten Zahnarznei—Wissenschaft. Nach den besten Quellen und eigenen Erfahrungen dargestellt. Gr. 8vo, Berlin, 1836.
- BLUMENTHAL, CARL AUG.—Nähere Prüfung der Aetiologie der Zahnarbeit der Kinder, gegen Wichmann. Gr. 8vo, Stendal, 1799.  
Uebersicht der naturalischen Geschichte der Zahne der Aetiologie, Diagnosis, etc., der Kinder.
- BOND, THOMAS E.—A practical treatise on Dental Medicine; being a compendium of medical science, as connected with the study of Dental Surgery; to which is appended an inquiry into the use of chloroform, and other anæsthetic agents.
- BOURDET.—Recherches et observations sur toutes les parties de l'art du dentiste. 2 vols, 12mo, Paris, 1757.  
Soins faciles pour la propreté de la bouche et pour la conservation des dents. 16mo, Paris, 1759, et 16mo, Lausanne, 1759.  
Dissertation sur les depots des sinus maxillaires. 12mo, Paris, 1764
- BRUN, ANNA AND FRANC, GUIL. VACHER.—Disputatio de dentitionis accidentibus. 4to, Paris, 1767.
- BRUNNER, ADAM ANTON, [Surgeon Dentist.].—Einleitung zur richtigen Wissenschaft eines Zahnarztes; mit zweyen kupfertafeln. 8vo, Wien, 1766.  
Abhandlung von der Hervorbrechung der Milchzahne. 8vo, Wien, 1771.
- BÜCKING, JOH. JAC. HEINR.—Vollständige Anweisung zum Zahnausziehen, mit 3 kupfer. 8vo, Ebend, 1782.
- BUCHNER, ANDREAS ELIAS.—De cura dentium ad famitatem proficua. 4to Halœ, 1752.
- BUNON.—[*Surgeon Dentist of Paris*.] Dissertation sur un préjugé concernant les maux des dents des femmes grosses, 12mo, Paris, 1741.  
Essai sur les maladies des dents, où on propose de leur procurer une bonne conformation dès la plus tendre enfance. 12mo, Paris, 1743.  
Experiences et demonstrations faites à l'hospital de la Salpêtrière et à S. Côte, en presence de l'Academie de Chirurgie pour servir de suite et de preuves à l'essai sur les maladies des dents. 12mo, Paris, 1746.

## A UNIVERSAL FEE BILL.

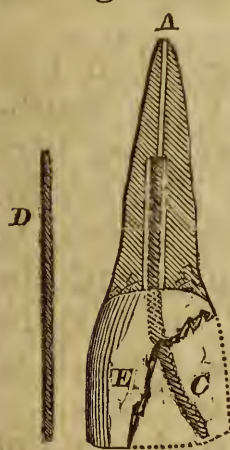
At the various Dental Conventions held of late years there have been many suggestions made by members of the profession, from different parts of the country, concerning the irregularity of fees which obtains in the profession. There is probably no profession, and indeed no trade, where the tariff of charges is not more systematized than in ours. Conceiving that the matter is of importance to the profession, and not less so to the public, we would state in a few words the evils of the present system, and the benefits to be derived from an entire change. In the prosecution of any business there are three causes which conduce towards the appreciation of an individual by the public: that is, his popularity and consequent success. These three causes are: first, a knowledge of his business or profession, founded on both study and practice.—Second, power to please the public, independent of capability for business.—Third, a low rate of charges. With either, any, or all of these qualifications in his favor, the practitioner may be sure of prosperity from some quarter. To obtain however the two first of these qualifications, it is necessary that a man should be active, intelligent and persevering; with the latter, he can arrive at the same end, while its attainment argues no superior power on his part. Thus the man who chuses to undersell, or undercharge in his trade or profession is certain to find customers, no matter how incapable he may be of performing what he undertakes. And thus the competent workman is shoved to the wall, because he is unable, or unwilling to *give* away what has cost him years of thought and labor to procure. But this disadvantage of the present system is not its only objectionable feature. As there is no standard and no accepted rule

for charges, operators themselves do not know how to be guided in making their bills. It is perhaps unfair to charge only for time expended on a patient, because often the operation requiring the least skill and study is the longest to perform, while a process which has only been arrived at by years of study and experiment, is finished in a few moments. It is to arrive at some just medium that we make these suggestions. Let there be a tariff, or fee bill, drawn up by a committee appointed from the various societies, and presented and voted upon either at the next regular meetings or at special meetings called for the purpose. Such report of the committee being subject to debate, it will be easy to arrive at a fair expression of the opinion of all, and thus the end will be as nearly obtained as is possible. The advantages of such action must be evident to all; with a universally admitted tariff of charges no one man will have any advantage over another, as far as this matter is concerned. The fraternity of Dentists will be dignified by the movement, and the public, knowing that they can obtain no advantage of low fees, will seek only the best operators; thus every educated, thorough-working dentist will find his practice increase, while the quacks, the hangers-on, the parasites of the profession, will be driven down to their own level, having lost the only advantage they possessed, that of being able to keep themselves alive upon nothing. While even they will be benefited, for they will seek some other labor, perhaps better suited to their peculiar capacities.—EDS.

## FILLING TEETH.

BY G. H. P.

Although much has doubtless been written upon filling teeth, the subject is by no means exhausted. Others have written upon various modes of operating, it is our intention in the present article to describe briefly our manner of proceeding in cases where we find it necessary to destroy, amputate and remove the nerve, and to restore or build out any portion of the broken tooth. Our process will be understood by referring to the subjoined cut. After preparing the root



for filling in the usual manner, we fill about one third from the apex A; then prepare it as for an ordinary pivot tooth, inserting a smooth gold wire, considerably smaller than the canal prepared; around this, plug as solid as possible; after removal, insert in its place a gold screw-cut pivot C, nearly as long as the crown of the tooth to be restored; this gives great strength, and the cut in the pivot holds firmly the gold. D represents the screw pivot.

After filling the wells or pits in the strong portion of the tooth, we wind around the screw a small rope of annealed foil, then proceed to restore and finish, using small pieces of foil, Nos. 4 and 6, annealing as we use it, with very small serrated instruments. We have had great success in similar operations to the one above described, and would recommend them in preference to the insertion of artificial teeth, where the latter can possibly be avoided.

As the following letter contains some information on dental matters, and is quite interesting, we give it in full.—Eds.

*Buenos Ayres, July 14th, 1858.*

When I took leave of you in early spring, girding up my loins for a circuitous journey hither, you opened to me your views concerning the establishment of an Odontological Review, or Journal of Dentistry, requesting at the same time communications from myself. If no crisis in dentistry has happened since we shook hands at the Cunard Dock, in Jersey City, I presume your undertaking has been commenced—at all events, I will devote half an hour of leisure to the pleasant duty of correspondence.

Having dallied in England a little longer than I at first intended, it was nearly May before I left Southampton for my destination, and I have been here only a week, having staid a few days at Montevideo. Of the voyage I should be glad, at greater leisure, to send you an account; but I must pass it over with the mere mention that everything went well, and that the only *contretemps* in the entire passage was a touch of the *pampero* wind as we were entering the Plata.

I staid a week at Montevideo, and arrived here but a few days ago. The season is quite favorable for a new comer, so far as temperature is concerned, as this is the Buenos Ayrean midwinter. The sanitary state of the city is very satisfactory, and the temperature is such as you experience in New York in the latter part of May. A thermometer (Fahrenheit) which I brought with me has varied between 57 and 69 degrees above in the shade.

My time is far too limited to permit of an attempt at description of Buenos Ayres; besides, the city is al-

most as well known to readers now-a-days as Williamsburgh or Hoboken to New Yorkers, and I will therefore hasten to set down some professional jottings.

You will naturally desire some dentistic particulars, but like Channing's Knife grinder, I must exclaim:—"Story? God bless you! I have none to tell, Sir!" for the fact is, the South Americans are quite illiberal in odontological matters. They persist in having sound teeth in their heads! The display of ivory made by lowest classes is an enviable one, and the *gauchos* of the Pampas show "sets" sufficiently true, regular and white to enamor the least impulsive of our brethren who stay at home at ease.

It may be that I have yet seen only favorable specimens of these wild horsemen, but such as have passed under my notice were really magnificent. The *gauchos*, or men of the country, whose only occupation is the care of the immense herds of cattle that roam over the interior of the State, are really a study for the anatomist. They pass at least one half of their lives on horseback, and become completely misshapen in consequence. Scarcely one in ten but is frightfully bandy-legged, although when mounted he may look a perfect Pampa Adonis; and they acquire a peculiar stoop of the neck which I have never seen even in the most constantly mounted cavalry regiments in Europe. These men live almost entirely on animal food, sometimes subsisting for weeks on jerked beef and the muddy water which is found at rare intervals on the Pampas, but all I have seen were in robust health, and I am told they are subject to a very limited class of diseases while on their native plains. As might be expected, their system is prone to fistula, produced by their perpetual equitation, and for some unexplained reason, I am informed by an English physician, heart diseases are more common than any other malady. It is very seldom, even in case of severe wounds, that these picturesque horsemen resort to a physician;

cowdung and urine are favorite vulnerary remedies with them.

I visited this morning, in company with a New York acquaintance, the British Hospital, a charitable institution admirably conducted, and devoted principally to the reception of invalids from British vessels, but many of our own seamen find a comfortable resting-place and scientific treatment here. There is also a French Hospital here, and, I believe, an Italian. The British Hospital has been in existence for many years, and is a blessing of the first importance to the sick of British vessels. The building itself is well constructed, with airy wards, &c., and the attendant medical men appear to be profoundly versed in the different branches of medicative science. The admissions in the years 1856-1857 were 134, and in 1857-1858, 133. My memorandum of the number of deaths has been mislaid, but I believe it was about 40, among which some 15 from venereal disease. One poor lad of 19, a British man-of-war's-man, was pointed out to me, as suffering from odontalgia ensuing upon excessive salivation previous to his entering the hospital. He was much emaciated, and, although odontology is not a speciality with myself, I took note of his case for your benefit. The teeth presented the appearance usual after severe cases of salivation, and the dull wearing pain was irregularly intermittent. The treatment he was undergoing, (he had been but three days in the hospital), was a combination of the European with the native system. Frequent warm baths were administered, and sarsaparilla in the usual manner, besides which a native purgative was employed with sensible effect. This simple is the *Papita*, (little root), also called *papita purgativa*, which is found in abundance upon the Pampas of this state. It is a small bulb about the size of an onion, which I have only examined as yet in the dried state. The Gauchos chew a small portion of the bulb, when an aperient is nec-

essary, but physicians here administer it in the form of tincture, and in powder. Ten grains are a sufficient dose for an adult, though fifteen are occasionally administered, and its effects are both certain and rapid. Five grains of papita, *bis in die*, have been taken by the young sailor, and have ameliorated his condition in connection with the bath.

Although the Gauchos of this region seem to be distinguished by the whiteness and regularity of their teeth, I am informed by an English physician who has recently returned from Asuncion, (the capital of Paraguay), that some tribes of that country, who occasionally visit the capital, have quite a different character. Their teeth are discolored, rickety and sometimes black. He attributes this circumstance to their reported practice of eating clay. The soil which they devour is a rich, ochrey earth, iron-brown in color, and appears to be digested without difficulty. Very little is known of the habits of these Guaycurus, but it is believed that they mix the clay with the leaves of the *yerba*, (*ilex Paraguensis*) or Paraguay teatree and the fact is sufficient to explain the discoloration of their teeth, especially as the same habit in Georgia is known to produce a like result. I believe that the natives of Sumatra and other East Indian Islands have the same proclivities. The Quichua Indians of the interior provinces of the Argentine Confederation, chew *coca*, (the leaf of an *erythroxylon*), but it only effects the dental system when mixed, as is usually done, with lime. It then has a deleterious effect upon the teeth.

I am to visit the hospital again to-morrow, (Saturday), but this letter, which is going to Montevideo, must leave to-night.

From the low, marshy country surrounding Buenos Ayres, one would be inclined to expect that ague and intermittent fevers must prevail, but I find on the contrary that they are scarcely known. The exanthemata are more frequent, and there is a predisposition in

the population to pustulous fevers. The Vaccine Establishment, however, keeps down small-pox, which was formerly very destructive.

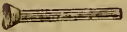
The principal diseases among the foreign population are pneumonia and phthisis, owing to the humidity caused by the northerly winds, which sweep down over the marshes and fens of the Paraná of Paraguay. Flannel is universally worn by the natives as a protection, even in the warmest weather. Pulmonary affections are, nevertheless, not uncommon even among born *Portenos*. The use of Coca as a remedy is gradually becoming extensive. I have no time to enter into detail, and hastily wind up. Truly yours.

W. S. F.—M. D.

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*Messrs. Editors*, Knowing that your valuable Journal is the receptacle of all the new improvements, and theories pertaining to our useful art. I wish to make a few suggestions which if you think proper you may give a place, and if they serve to call the attention of those interested I shall have accomplished my object. Perhaps there is not one in the whole catalogue of Dentists, from the most scientific down to the *Pack Pedlar*, but has had more or less trouble from teeth cracking while undergoing the process of soldering, even though they had taken every precaution at their command. I know that in many cases it is the result of carelessness, or want of proper knowledge of that branch of work, but I think that in very many cases it is owing to the manner or style of the teeth as they

are at present manufactured. Now I am no manufacturer of teeth, but I have to mount them for Dental work, and have some idea how they ought to be made to prevent them from being so liable to crack while being soldered. In the first place the great mass of teeth are *too thin* to be of suitable strength. Secondly the Lateral (Superior) Incisors are smaller in proportion than any of the rest, and with me more frequently break; they are too narrow for the centrals, and in many cases they are so narrow that the *pivots* take nearly all the strength of the tooth. Thirdly, I think there is a fault in making the pivots, to which I would call special attention. I notice that the pivots in many teeth are conical shaped, growing gradually large as they penetrate the tooth as seen in fig. 1, while

- 1  others have distinct heads as in fig. 2; others with hollow heads as in fig. 3; some have the end of the pivot flattened as seen in fig. 2; 2  4; while yet I have seen some with the end of pivot in the tooth split as seen in fig. 5; 3  which I think would be preferable to any of the above. At the same time I would suggest the trial of the hollow pivot, made from 4  hollow wire, with the end in the tooth *enlarged or flanged*, as would be found best on 5  trial.

This ends the suggestions I would make, leaving it to you or some one else to speak of their merits or demerits as the case may be. Yours in haste,

C. H. ECCLESTON,

OXFORD, N. Y.

## THE DENTAL STATE OF THE BRITISH ARMY AND NAVY.

We subjoin accommunication made to the "London Morning Post," of Aug. 3d, in reference to the condition of the teeth of the British Army and Navy. The suggestions containen in this article are worthy of the attention of the public of our own country; not so much as regards the Army and Navy perhaps, but in connection with the public themselves, and we would take this opportunity to make a suggestion which has presented itself to us and which we think deserving of consideration. It is doubtless known to our readers that there are in all large cities public dispensaries where the sick poor can resort for advice and medicine, free of expense. We would suggest, that in connection with these dispensaries, which are supported out of the city treasury, there should be appointed dentists for the poor, paid by the city, to whom all could repair in cases of dental disorders, and find relief gratis. We are of opinion, also, that a dentist should be attached to every regiment of soldiers, and to every man-of-war, for it is not necessary to explain here how many disorders can be traced to diseased teeth, and could be treated with greater propriety and greater success by a dentist than by a surgeon. We throw out these hints for the benefit of the public, hoping that they may take root somewhere: and with this preamble we present the above-mentioned communication.—EDS.

"TO THE EDITOR OF THE MORNING POST.

"SIR:—In the camp of Chalons a circular has been issued by the chief of the medical staff, Baron Larrey,

giving instructions to the officers regarding the sanitary condition of the troops, and, amongst other things, directing their attention in particular to see that the teeth of the soldiers are kept clean, and ordering that brushes should be supplied for that purpose, and that the requisite time should be allowed to the soldiers. In your columns of last year there appeared some able letters of a dentist on the utter neglect of the teeth of our soldiers and sailors; and an offer of the Dental College, comprising the most skilful of the profession, gratuitously to attend to the soldiers in barracks or camps, and to give instructions to the army and navy surgeons, was published. The highest medical authorities on the necessity of such attention were quoted. Gen. Sir De Lacy Evans was foremost in giving the suggestion his most active support; and for a short time it really appeared that the dark cloud which bars entirely the slightest glimmer of common sense from our military institutions was about to break. A circular was despatched to the regimental surgeons, with the information that the teeth of our soldiers were of great value, and with this conclusive effort the energies of the military authorities were exhausted. It was in vain the army surgeons pointed out, in answer, that it was a fact of which they had long been aware, but that they were not supplied with the requisite instruments; that they had no power over the soldiers unless in the hospital; and that, though instruction by the best masters was offered, they were debarred from accepting it: the teeth of the soldiers were allowed to rot; but while our authorities are thus inactive, the French circular proves how sensitively alive our warlike neighbors are to all that concerns their army. The Commander-in Chief has lately startled us by the assertion that, however impressed he may be with the evils of the mismanagement which decimates our army, he is powerless to remedy them; the responsibility therefore rests upon

Gen. Peel and Sir John Pakington, and we pause to see, if with this circular of the French army before them, this disgraceful neglect to our service is still to be continued.

“July 30, 1858.

“CHIRURGICUS.”

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#### ADJUSTMENTS OF CLASPS BY DR. F. H. C.

The great perfection to which we have arrived in adapting atmospheric pressure plates, has, I fear caused us to neglect in some degree experiments having in view improved modes of adapting clasps where they are required.

I suppose it safe to say that clasps embracing teeth, are almost always injurious to them in some degree. I have found however that there is a great difference in their injurious effects owing to the different modes of adapting them. The teeth are injured by them in several ways as is well known. Firstly by causing them to decay, and secondly by drawing them slowly from their sockets. They are also sometimes seriously injured by narrow clasps cutting a groove in their necks.

It is generally believed that the decay is caused by the accumulation of impure matter between the clasps and the teeth which they embrace. This being so, would it not be the part of wisdom to so shape the clasp as to allow as little room for deposits as possible? the answer may be that teeth are more apt to decay in very narrow spaces than in wider ones.

I hold it to be *absolutely* impossible to fit clasps around natural teeth so closely as to prevent them from decaying when covered, and I believe it unwise to attempt to do what is *plainly impossible*.

Wide clasps have been in great favor for many years owing to the greater firmness with which they hold the plate and their lesser liability to wear the natural teeth to which they are attached. After much careful investigation and close observation I am compelled to believe that wide clasps do more mischief than properly attached narrow ones.

My opinion is that where only a perpendicular support is necessary the tooth should be only touched in two or three places, which places should be on the sound enamel if possible. The remaining portion of the clasp should be as far removed from the tooth as possible, and be so narrow and well rounded as to allow

of the free movement of all soft substances ever found in the mouth, around and between it and the teeth to which it is attached.

The injury to the tooth is not usually found directly beneath the clasp where it is in contact with it, but nearer the gum, giving reason to suppose that the cause of decay is not from deposits of food, &c., but a secretion from the edge of the gum itself, rendered more unhealthy by the influence of the plate. I have often seen teeth much softened wherever the clasp covered them except at the points of absolute contact, and there they were polished and perfectly sound. In a few cases where there has been a hole through the clasp, an isolated spot has been found perfectly healthy and sound, while all that was covered has been more or less softened. Here is a large field for study and investigation, the younger members of the profession will do well to look into it. It is harder often to *unlearn* and to quit a bad practice than to acquire knowledge of a good one.

I must here take leave to say that the great progress which has been made in adapting artificial teeth is, I fear, doing much to lead the young practitioner from true dental surgery, and although no man can think more highly than I do of the superb dental mechanism that we now see, my admiration is mingled with exceeding regret that the talent which produces it has not found a higher aim in the preservation of the natural organs which are often sacrificed in the most ruthless manner to make room for artificial ones.

~~Eds.~~ Where clasps must be used we think much of the method introduced a number of years since by a member of the profession in this city, which is to leave quite a space between the plate and clasp, allowing circulation. The band clasping the tooth high where the Enamel is thick and strong.—*Eds.*

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## AMERICAN DENTAL CONVENTION—FOURTH ANNUAL SESSION.

### MINUTES.

#### FIRST DAY, MORNING SESSION.

Convention assembled at the Melodeon, in the city of Cincinnati, on Tuesday morning, August 3d.

Called to order by the President, Dr. Taylor, at about 10 o'clock. Members present.

NEW HAMPSHIRE Dr. A. Blake, Sardinia; Dr. Frank Fuller, Portsmouth.

VERMONT.—Dr. M. Tefft, West Poultney.

CONNECTICUT.—Dr. W. Potter, Norwich.

NEW YORK.—Dr. L. W. Rogers, Utica; Dr. W. B. Roberts, New York City; Dr. G. H. Perine, New York City; Dr. John Allen, New York City, Dr. L. F. Tremaine, Rome; Dr. H. Jameson, Jr., Lyons.

PENNSYLVANIA.—Dr. Robt. Vandervert, Pittsburg; Dr. J. Westbay, Pittsburg; Dr. W. M. Wright, Pittsburg; Dr. S. S. White, Philadelphia; Dr. A. W. Asay, Philadelphia; Dr. W. R. Greenlee, Meadville; Dr. F. J. Chandler, Rochester, Dr. J. B. Williams, Alleghany City; Dr. J. Murray, Beaver; Dr. J. McCalla, Lancaster,

VIRGINIA.—Dr. James Johnston, Staunton.

MISSOURI.—Dr. Charles Merry, St. Louis; Dr. A. M. Leslie, St. Louis; Dr. Isaiah Forbes, St. Louis; Dr. S. Dunham, St. Louis.

GEORGIA.—D. S. Chase, Augusta.

MISSISSIPPI.—Dr. A. Berry, Raymond.

TENNESSEE.—Dr. B. Wood, Nashville; Dr. W. H. Morgan, Nashville; Dr. Bryan Cole, Memphis; Dr. C. F. Munster, Jackson.

KENTUCKY.—Dr. J. B. Lindsay, Maysville; Dr. H. Munro, Lebanon; Dr. W. D. Stone, Lexington; Dr. S. Driggs, Lexington; Dr. D. Dougherty, Bardstowu; Dr. James Nourse, Cloverport; Dr. S. Tuttle, Shelbyville; Dr. J. W. Leatherman, Jeffersontown; Dr. Rogers, Shelbyville; Dr. H. McCollum, Augusta; Dr. Geo. P. Newlin, Danville; Dr. R. Peckover, Paris; Dr. B. J. Dudley, Louisville; Dr. J. W. Grant, Lancaster.

ILLINOIS.—Dr. W. W. Allport, Chicago; Dr. I. B. Branch, Galena; Dr. W. P. Kingsley, Freeport.

MICHIGAN.—Dr. P. S. Grimes, Kalamazoo; Dr. John Mansfield, Niles.

INDIANA.—Dr. David Cloud, Green Castle; Dr. David Marshall, Carthage; Dr. M. H. Shadoan, Rockport; Dr. J. P. Ulrey, Rising Sun; Dr. W. R. Webster, Richmond; Dr. S. M. Goode, Madison; Dr. J. Hood, Greensburg; Dr. John Keely, Brookville; Dr. George Lupton, Shelbyville.

OHIO.—Dr. C. Palmer, Warren; Dr. A. E. Lyman, Newton Falls, Dr. R. McDowell, Wooster; Dr. S. Brown, Piqua; Dr. Wm.

B. Ingersoll, Oberlin; Dr. C. M. Kelsey, Mt. Vernon; Dr. George Watt, Xenia; Dr. S. Clippenger, Bellefontaine; Dr. W. H. Atkinson, Cleveland; Dr. J. Sanford, Chillicothe; Dr. H. A. Smith, Oxford; Dr. J. F. Siddall, Oberlin; Dr. J. Bercher, Findley; Dr. J. L. Dunlap, Chillicothe; Dr. Alfred Terry, Norwalk; Dr. F. R. Rehwinkle, Chillicothe; Dr. Wm. Hall, Piqua; Dr. C. Sill, Franklin; Dr. D. F. Dyche, Lebanon; Dr. Wm. E. Dunn, Delaware; Dr. E. Conway, Dayton; Dr. G. W. Keely, Oxford; Dr. D. W. Harris, West Liberty; Drs. Jas. Taylor, Chas. Bonsall, S. L. Hamlen, B. D. Wheeler, J. Richardson, J. Taft, G. L. VanEmmen, E. W. Ruth, Jas. Erwin, Cincinnati.

The records of the last annual session of the convention, were read by the Secretary and approved.

Dr. Taft, chairman of the committee appointed last year, to prepare business for this Convention, made the following report:

- I. President's Address.
- II. Election of Officers.
- III. Report of Committees.
- IV. Reading original papers and Essays.
- V. Discussions:
  1. The best means of securing good teeth.
  2. The best means of preserving the teeth.
  3. Treatment of exposed nerves.
  4. Mechanical Dentistry.
  5. Exhibitions of Implements, etc.
  6. Filling Teeth.
  7. Miscellaneous.

Report adopted.

The President presented a letter from the Vice President, Dr. Tucker, of Boston, giving his reasons for being absent, and expressing his regret, that he could not be present at this Convention, which was read and ordered to be placed on file.

The President then made a short and impressive address, which was well received.

The Convention then proceeded to the election of officers. On the first ballot for President there was no choice. Second ballot, Dr. Forbes of St Louis 29 votes, Dr. Allport of Chicago, 19.

On motion of Allport, Dr. Forbes' election was then made unanimous.

Dr. Rogers then offered the following:

*Resolved*, That a Treasurer be appointed separate from the Recording Secretary, who shall, in addition to the usual duties, keep a record of the names of all the members of the Convention, and collect such assessment, as may be made upon each.

Adopted.

On the first and second ballot for Vice President, there was no choice. On the third ballot, Dr. Rogers received 28 votes, Dr. Allen, 25. On motion, the election of Dr. Rogers was made unanimous.

On motion,

*Resolved*, That the remaining officers be chosen, *viva voce*.

Dr. J. Taft of Cincinnati, was chosen Recording Secretary. Dr. D. S. Chase of Augusta, Ga., Corresponding Secretary. Dr. W. B. Roberts of New York, Treasurer.

On motion adjourned to 3 o'clock, P. M.

#### FIRST DAY, AFTERNOON SESSION.

Convention met pursuant to adjournment. Record of morning session was read and approved.

On motion, Drs. Allport and D. S. Chase, were appointed a committee, to conduct the President elect to the chair. On taking the chair, the President made some appropriate remarks,

On motion of Dr. Wright, of Pittsburg,

*Resolved*, That the thanks of this Convention be tendered to Dr. James Taylor, our retiring President, for the able and impartial manner in which he has presided over its deliberations, as well as for his spontaneous address on retiring, which has embraced so much interest and value to the profession; and especially, for his remarks on the history and progress of dental education, in this country, during the past thirty years.

On motion of Dr. Perine, of New York,

*Resolved*, That the thanks of this Convention be tendered to the retiring officers. for the very faithful and efficient manner in which they have discharged their duties, during the past year.

On motion,

*Resolved*, That an executive committee of five, be appointed by the chair, to serve during the next year.

Committee—Drs. Allport of Chicago, Wright of Pittsburg, Les-

lie of St. Louis, Fuller of Portsmouth, N. H., and Stone of Lexington, Ky.

On Motion of Dr. I. B. Branch,

*Resolved*, That the Treasurer be requested, if practicable, to procure a stenographic reporter, to serve this Convention, during its present session, and pay the same from the funds in the treasury.

On motion of Dr. J. Taylor.

*Resolved*, That in the opening of each subject for discussion, written remarks shall first be in order, and that the gentleman opening the discussion on any given subject, be permitted to close the same.

The executive committee were requested to examine the books and vouchers of the Secretary and Treasurer. After the examination they made the following report, viz:

We, your executive committee, having examined the vouchers of the Secretary for the past year, find the same correct, and report a balance remaining in the treasury, of \$262.96.

W. W. ALLPORT, W. D. STONE,

W. M. WRIGHT, F. FULLER,

A. M. LESLIE.

On motion of Dr. Wright,

*Resolved*, That when we adjourn, we adjourn to meet to-morrow morning at 8 o'clock, at the lecture room of the Ohio Dental College.

The first topic for discussion, viz: "The best means of securing good teeth," was now announced by the President, and papers pertaining to it called for. Drs. Richardson and Ingersoll, read interesting papers upon the subject; after which the subject was fully and ably discussed by Drs. Atkinson, Berry, Perine, Rogers, Wright, and Watt.

Adjourned to meet to-morrow morning at 8 o'clock.

WEDNESDAY MORNING, AUGUST 4th. 8 o'clock.

The Convention met according to adjournment, at the lecture room of the Dental College. The minutes of the preceding session, were read and adopted.

The discussion of the same subject was resumed; remarks made by Drs. Fuller, Roberts, Rehwinkle,

Kelsey, Stone, Goode, Chandler, Taylor, Rogers, of Cincinnati, Murray, DeCamp, McKellops, Dunham, and Taft.

The second topic, "The best means of preserving the teeth," was taken up and discussed by Drs. Watt, Taft and Taylor.

Adjourned to meet at same place, at 3 o'clock, P. M.

#### AFTERNOON SESSION.

The Convention met as by adjournment. The minutes of the morning session were read and approved.

The third topic, "Treatment of exposed nerves," was taken up and discussed by Drs. Atkinson, Branch, Asay Wright, Grant, Taft, Ingersoll, Johnston, Stone, Berry and others.

A dispatch was received by the President, announcing the death of Dr. C. O. Cone, of Baltimore, on the 1st of August.

Upon the announcement of the demise of Dr. Cone, on motion.

*Resolved*, That the Convention, as a mark of respect now adjourn.

Adjourned to meet same place, to-morrow, at 8 o'clock.

#### DENTAL COLLEGE, THURSDAY MORNING, 8 O'CLOCK.

Convention met and was called to order by the President. The minutes of the preceding session, were read and approved.

Dr. Wright offered the following:

WHEREAS. It is the custom of the several railroad companies of the United States, to permit persons, passing to and from Conventions,—religious and secular—upon the payment of half fare; Therefore,

*Be it Resolved* That the Executive Committee of this body, be authorized to represent our interests to the Presidents of the various railroad companies, in the matter of the aforesaid reduction of fare, so that members of the dental profession, who may desire to attend

the Convention next year, may have the benefit of such arrangement, if made.

The topic last under discussion, was resumed by Drs. Forbes and Kelsey, when the discussion upon that subject was closed.

On motion of Dr. Perine,

*Resolved*, That we now decide upon the place for the next annual meeting of the Convention.

Dr. Perine suggested Buffalo, N. Y.; Dr. Taylor suggested Niagara Falls, N. Y.; Dr. Atkinson suggested Cleveland, O.

On motion, it was unanimously

*Resolved*, That when we adjourn, it be to meet on the first Tuesday of August, 1859, at Niagara Falls.

On motion of Dr. Allport,

*Resolved*, That a committee of one be appointed, to make all necessary arrangements for said meeting, and to report to the profession, previous to the meeting.

Committee—Dr. Rogers, Utica, N. Y.

Adjourned to meet at 2½ o'clock, P. M.

#### AFTERNOON SESSION.

Convention met at 2½ o'clock, P. M. Minutes of the morning session read and approved.

Topic No. 4, "Mechanical Dentistry," was called up for discussion.

Dr. Fuller described, by request, his method of making partial dentures, to be maintained by atmospheric pressure.

Dr. J. Allen read a paper on "Artificial Dentures," after which Dr. Roberts of New York, addressed the Convention upon the subject of continuous gum work.

On motion of Dr. Chase,

*Resolved*, That we now take up the subject of "Filling Teeth."

Which was discussed by Drs. Atkinson, Allport,

Stone, Rogers, Dunham, Branch, Tuttle, Wright, and others.

On motion of Dr. Taylor,

*Resolved*, That the discussion on filling teeth, be now closed, and that twenty minutes be appropriated to the discussion of "local anæsthesia."

At the expiration of which time, "Miscellaneous Subjects" were taken up.

Dr. Wright described the treatment of a case of irregularity.

By Dr. McKellops,

*Resolved*, That the Convention appoint a committee of five to memorialize Congress, on the necessity of appointing dentists for service in the regular army. The committee to act in concert with that of the "Western Dental Society."

Committee—Dr. James Taylor, Cincinnati, O. ; Dr. Geo. Watt, Xenia, O. ; Dr. Frank Fuller, Portsmouth, N. H. ; Dr. W. H. Atkinson, Cleveland, O. ; Dr. Stone, Lexington, Ky.

On motion,

*Resolved*, That the Treasurer be authorized to pay the Janitor of the Ohio Dental College, ten dollars for his services to this Convention.

Dr. Allport presented a case, in which a full set of continuous gum teeth, worn by a lady, without any peculiarity of constitution, produced a peculiar and excessive disease of the entire buccal cavity. Dr. A. asked for information on the subject, its cause, treatment, etc.

Dr. Rehwinkle described an interesting case of necrosis of the inferior maxilla.

Dr. Osmond described a case of soldering lower sets of teeth, particularly applicable to silver cases.

Dr. Rogers of Utica, N. Y., reported a case of diseased mouth, similar to that reported by Dr. Allport, by wearing a gold plate. Was unable to give any satisfactory definition of it.

Dr. Watt presented a surgical case from Dr. Allport, for which see report of discussions.

Dr. Vandervert described his method of welding platinum, and also gave a demonstration, welding some platinum, perfectly.

Adjourned to meet to-morrow morning at 8 o'clock.

#### FRIDAY MORNING, 8 O'CLOCK.

The Convention met at the College. The minutes of last meeting were read and adopted.

A paper was read by Dr. Murray of Pa., upon "Diseased Antrum;" ordered to be printed. Also a paper was read by Dr. McCalla, on "Lateral Pressure of the Teeth, considered in relation to obscure Nervous Affection."

Cases of diseased antrum was described by Drs. Kelsey, Allen and Wright.

Case of irregularity by Dr. Wright.

A case of osseous tumor was described by Dr. Siddall of Oberlin, O.

A case of protrusion of the inferior maxilla was reported by Dr. McKellops, and suggestions called for in regard to the remedy.

On motion, the discussion upon filling teeth, was resumed for one hour; remarks were made by Drs. Palmer, Rogers, Fuller and Forbes.

Dr. Atkinson introduced to the Convention, Dr. Brainard of Cleveland, who made some appropriate remarks.

Dr. Chandler described the treatment of an obstinate case of hemorrhage.

The report of the Investigating Committee was read by Dr. Taft, and adopted, and the committee requested to prosecute the enterprise.

REPORT OF THE DENTAL INVESTIGATING COMMITTEE.  
—Your Committee would most respectfully report,—that immediately after the appointment, the commit-

tee organized by selecting Dr. A. Blakesly of Utica, N. Y., Chairman ; Dr. T. L. Buckingham of Philadelphia, Pa., Secretary ; and Dr. J. Taft of Cincinnati, Treasurer.

Your Committee promptly issued some four thousand circulars, setting forth the aims and objects of the enterprise briefly, and soliciting the aid and cooperation of the profession, so far as they are disposed. These were sent to all the members of the profession in the United States, so far as the committee could obtain their names and localities. Some of these were responded to encouragingly, promising co-operation, and making small remittances ; all regretting that they could not now do more, and promising more in the future, if the enterprise was sustained. Many others wrote encouragingly, but acted discouragingly, or rather, we were discouraged because they did not act at all. All, however, had much to say in regard to the peculiar character of the times, financially considered, and we suppose that a much greater amount would have been appropriated, had there not been in fact, much reality in the cause assigned.

Your Committee also made some effort to find some person or persons, whose services could be commanded, to conduct experiments and investigations, as contemplated in the original plan. From the inquiry made, we think there would be no difficulty to procure such a person. The committee were not fully warranted to make an engagement with any one, till the amount requisite for payment, could be commanded. We think this could have been done long before this, had not the financial troubles existed. The necessity for the prosecution of the work is now just as great as it has been at any time past, and your committee is encouraged to believe, that the profession only require to know that the prosecution of the enterprise is a fixed fact, that they will sustain it. There has been pledged and paid over \$200. The expenses,

some \$60, have been paid out of this. Your Committee request direction from this body, as to the course to be pursued in future.

J. TAFT, A. BLAKESLY, T. L. BUCKINGHAM.

An instrument called "Universal Spiral Spring Drill," was exhibited to the Convention, by Dr. Merry of St. Louis, who is the inventor. A vote of thanks was tendered to Dr. Merry. It was esteemed by all as a very valuable instrument. It was requested that instruments of this kind be manufactured, and put into market immediately.

A resolution of thanks was extended to the members of the profession, of Cincinnati, for their hospitality, manifested to the members attending the Convention.

A resolution of thanks was also extended to the Faculty of the Ohio Dental College, for the use of their room, for its sessions.

Adjourned to meet on the 1st Tuesday of August, 1859, at Niagara Falls. J. TAFT, Secretary.

Dr. F. Fuller was appointed to report on Conway's "Dental Lamp and Furnace," and at an informal meeting, presented the following report :

*Resolved*, That the principle of Conway's patent "Lamp and Furnace," is correct, and that it may, in our opinion, be made highly valuable for dental purposes, by increasing the capacity of the furnace.

F. FULLER, Committee.

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## FOURTH ANNUAL MEETING OF THE AMERICAN DENTAL CONVENTION.

### GENERAL REMARKS AND DISCUSSIONS;

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The fourth annual meeting of the AMERICAN DENTAL

CONVENTION, was held in Cincinnati, the 3d, 4th, 5th, and 6th days of August, 1858.

In accordance with the report of the Executive Committee, the address of the President being in order, Dr. James Taylor of Cincinnati, the acting President, stated that, by the dispensations of Providence, he had not been able to prepare a written address, as he fully intended to do. He, however, proceeded to deliver an extempore address, which was listened to with much interest, and which he has not been able to write out for this number.

The elections for officers occupying the remainder of the morning session, the Convention adjourned to 3 o'clock, P. M.

#### FIRST DAY—AFTERNOON SESSION.

The retiring President appointed Dr. Allport of Illinois, and Dr. Chase of Georgia, to conduct the President elect to the chair. He was introduced in a few appropriate remarks by Dr. A., and, on taking the chair, made a brief and appropriate address, of which the following is but a mere outline:

He thanked the Convention for the honor just conferred—he regarded it highly as an honor—bestowed on himself individually, but felt much more gratification in viewing it as a compliment to St. Louis, of which city he was representative. He would make a few remarks on this Convention. It was founded by the great and good members of our glorious profession; and one of its leading objects was to demonstrate the advantages to be derived from local associations. In this convention each member is responsible for his own moral and professional standing—each takes the responsibility of his own remarks; but it is not so in local associations. There the society is responsible for the moral character and professional attainments of its members. He alluded feelingly to the late sad bereavement of the retiring President who had just buried his wife.

He remarked that it would be easy to preside, if all would co-operate with him. We must consider ourselves one. I want your experience—We can perceive each other's weak points, and give support where needed; and we can perceive each other's strong points, and take advantage accordingly. To the beginner—the rising student—he would say, that as age advanced, and experience extended, he would find himself still a student. He advised all to be, in the strictest sense honest—*honest*. Even if adopted from policy, honesty is profitable. The physician's patients and mistakes are often buried together; our patients live to complain, and to exhibit the evidences of our lack of skill, or want of honesty. The best operators may fail, but still he thought he could tell, by inspection, when an operation had been *honestly* performed. A new student, he said, was apt to think himself about the best dentist in existence; but after a time, he recovered from such fancies.

Essays being called for and none presented, the President announced as now in order, discussions on the general topics reported by the Executive Committee. Before discussion began, it was resolved that on each topic, written remarks be first in order.

I. *The best means of securing good teeth.*

Written remarks being called for. Prof. J. Richardson read a paper, which was followed by the reading of another by Dr. W. B. Ingersoll, of Ohio.

Dr. W. H. ATKINSON remarked that this was a common-place matter, and should be better understood. He said the best means of producing a healthy person, are the best means of securing good teeth. Healthy individuals are likely to be produced only from healthy children, begotten by healthy parents, under proper circumstances. But, as it is mostly impracticable to begin so far back, we must attend to minute matters as they present themselves. The primary teeth should be carefully preserved, that the permanent may be

healthy. Many of the profession, he feared, were faulty in this; and parents are extremely careless in the matter. The first permanent molars were often lost, by this want of care, as they were mistaken for primary organs, and were left to their fate. He advocated filling the primary teeth before the pulp is exposed. His experience was that when the pulp of the deciduous organ is lost, its roots are not normally absorbed, to make way for the permanent tooth.

Dr. BERRY said the best way to avoid sickness, is to keep well. But in securing good teeth many things must be attended to. We wanted good stock to begin with. The parents should be healthy—and the grand parents—as hereditary pre-dispositions often jump a generation. To be safe, the dust from which we are created, must be right. It is important, he said, to inquire if, in ordinary food, we get enough of phosphate of lime, to properly develope the teeth and bones. Unfortunately, fine flour contained but little of it. It is mostly given to the horses and hogs, in the form of bran. If we would diet as Adam and Eve did, we might do better. Beef and pork, he supposed, contain but little of it. He preferred the bill of fare published in Genesis i. 29. He would make beef-steaks of pears, plums, peaches, etc., and the bread, he would make from the grain taken “just so.”

Dr. PERINE said, that dental disease is not new; but it had probably increased, though he knew not why. He had tested the medicinal use of phosphate of lime in his own family, and found it satisfactory.

Dr. ROGERS, of Utica, said it was not worth while to mention sound teeth as an argument against improper marriages. Stronger arguments were constantly brought to bear, yet they had no influence as long as people married according to their tastes and not their judgments. He did not believe that even well formed teeth would ordinarily last through life. He illustrated this idea by the fact that the teeth of the English

are good when they come to this county, but soon degenerate, like those of the natives. It would not do to attribute bad teeth to any one cause. He had theories but had little confidence in them.

Dr. WRIGHT said it was difficult to determine what is practicable. He had practiced twenty years and was still at a loss. People will marry "in spite of their teeth." If he had all the match-making for two or three centuries, he thought he could a race with good teeth. He believed bad teeth are often inherited. He has lost the same number of teeth as his mother, and the positions of those lost, exactly correspond. He could refer to a number of similar cases. This tendency, he thought, could not be prevented. He was at a loss to say when a parent inquired what a child should eat. He did not believe that sugar injures the teeth. He did not believe that decay of the teeth always begins externally. He thought it was as frequently internal in its origin as external.

Dr. WATT remarked that though he differed with some who had preceded him, yet he was much gratified with the remarks offered. It was important, he said, to notice two general points. The teeth should be properly developed; and they should be properly protected during development. He did not believe in internal decay of the teeth, and thought it would not do to lose sight of the chemical view of the question. No tooth is so badly developed that it will not fall to pieces spontaneously, and none so well that it can successfully resist the action of chemical agents, liable to be brought in contact with it. A well organized, solid tooth, however, would much better resist chemical action, than one otherwise constituted. It was important, then, to pay attention both to mother and child; and this he considered a *practical* question, and practiced accordingly.

## SECOND DAY—MORNING SESSION.

The first subject, the best means of securing good teeth, being continued, Dr. FRANK FULLER remarked, that it was a difficult and interesting question. If we do what we can for the health of the mother, that is all we can accomplish in this direction. He could scarcely understand what was claimed for the phosphate of lime, and would hardly administer it in a state of health, even if the mother's teeth were defective. He recommended a healthy regimen. Bad teeth, he said, were not usually found among the active, laboring classes, but with those who were confined to bad air, and led artificial modes of life. But, when the period of eruption arrives, much may be done. The doctrine of internal decay, as suggested yesterday, he considered altogether unsound. The diet, he said, was very important. The Irish, whose diet is principally potatoes, and who lack animal food, have very brittle teeth. He thought this evidenced a lack of earthy matter in the teeth. An intelligent German, in conversation with him, remarked that, his teeth being good when he came to America, but decaying soon after, he imputed the defect of the teeth in this country to the quality of food used. In Germany he used hard food, which kept the teeth clean, and they remained sound; here he used soft food, and his teeth decayed. He, (Dr. F.), thought the climate had less to do with the decay of the teeth, than the style of living.

Dr. ATKINSON inquired if Dr. F. thought that the brittleness found in the teeth of the Irish, was produced by defect of earthy matter.

Dr. FULLER said that was his opinion.

Dr. ATKINSON thought it arose from a defect of gelatine, and a relative excess of earthy material.

Dr. ROBERTS remarked, that much had been said of constitutional influence, that bad teeth are hereditary, etc. The doctrine may be true to some extent, but

not so far as some might suppose. A pure African has a good constitution, but by mixture with other races, it degenerates. The population of the United States is composed of a mixture of races. These all differ in physiological characteristics. A mixture of these races causes a disproportion in the form and size of the teeth and jaws. These thoughts however, he said were theoretical, not practical. He would not tell a lady she had married the wrong man. He would take as good care of the child's teeth as possible. Cleanliness, not only of the mouth, but of the whole body, was important. He did not believe in internal decay as suggested yesterday. The enamel being placed on the outside, indicates that the danger is from external sources. It extends only to the gum, then another substance acts as a protector, and who, he inquired, ever heard of caries attacking the roots of the teeth?

Dr. TEFFT, of Vermont, stated, that through his brother, a foreign missionary, he had some knowledge of the teeth of the Africans, in their native country. In their barbarous state their teeth are good; but, when introduced to civilized life, they decay. He remarked that on the east side of Lake Champlain, the teeth are attacked with "black decay," while in western New York and Michigan, the white is the prevailing type.

Dr. REHWINKLE said, that if the health were perfect, there would be no decay of the teeth. Uncivilized nations live more in accordance with nature. Decay of the teeth was evidently a chemical decomposition. Cleanliness was very important. He thought the use of lime-water and prepared chalk, as prescribed by Dr. White of Philadelphia, a good suggestion. The constitution of the child might be reached with advantage, sometimes through the mother. He thought an excess of earthy matter rendered the teeth brittle. In Ireland, he said, inflammation of the gums is a prevalent disease. The constitution was often injured by

malaria; and the fluids, being thus depraved, act injuriously on the teeth. In the malarious districts of France and Germany, he said, the teeth are not good.

Dr. KELSEY, of Mt. Vernon, remarked, that we cannot control marriage,—we must, therefore, take children as we find them. The health of the mother should be carefully watched, and she should have a healthy diet; but after all, cleanliness is the great thing. He advocated filling the primary teeth, and maintained the chemical theory of decay. Both sets of teeth should be carefully watched, and the primary should not be prematurely extracted. He would not go into the mists of the internal decay question. It belonged to the physiologist rather than the dentist.

Dr. LYMAN, thought the whole subject belonged specially to the dentist. If physiology does not belong to dentistry, he would inquire, what does belong to it?

Dr. STONE said the predisposition to decay is evidently hereditary; but we could counteract the tendency. The constitution could be materially modified. He recommended friction of the gums, from the earliest infancy. His own teeth are defective, and his wife's too; yet his children, he said, have all good teeth. He referred to a case—a physician's daughter. Her teeth were sound at twelve years of age. At thirteen, there were twelve decays. She drank no water—used milk almost exclusively. Her saliva was ropy, or tenacious. He directed her to drink water, use but little salt, *no milk*, no coffee. The ropy saliva disappeared; and the tendency to decay was corrected.

Dr. ROBERTS, advocated careful friction, or washing the gums in infancy. It usually prevented sore mouth, and promoted healthy dentition.

Dr. ASAY, considered cleanliness the important means. Early attention to the gums of infants, kept the mouth healthy, and rendered dentition easier. He recommended the use of a soft napkin, for washing and rubbing the gums. The Irish have usually white decay,

after they come to this country. He thought a large per cent. of the miseries of life, is due to neglected teeth.

Dr. BRANCH said, that to secure good teeth, we must secure a healthy constitution. Whatever is deficient in the system, should be appropriately supplied; and the temporary teeth should be retained as long as possible.

Dr. CHANDLER said; that the subject is beset with difficulties, but this should only impel us onward. The diet of both mother and child, he thought very important. He remarked, that, as a rule, in the South, house-servants have bad teeth, and field-hands good ones.

Dr. TAYLOR said, that science had already furnished us with a few leading facts. We know that there are certain elements in the teeth, and that certain articles of diet furnish these element. Then, different temperaments appropriate and use these elements according to their relative forces. The sanguine temperament, furnished with the same materials, would develop better teeth than the lymphatic. The temperament, however, might change, and the character of the teeth change with it. So far as the dental organs are concerned, he concluded there was nothing deleterious in our climate. The aborigines had good teeth, *even on the saltwater coast*. The constitution of the mother influenced that of the child. The blood of a child from a diseased mother, is impaired. An unhealthy mother was not, he said, a suitable or successful nurse. And here a practical question arises. If we can not impart a normal quality to the mother's milk, we can, at least, recommend that the child be supplied with a healthy nurse. He regarded the phosphate of lime, as an important remedial agent, in defects of the osseous tissues. It should be administered, in many cases, where it is deficient in the system. He spoke of its relative quantities in bran and flour, and thought the

system would be better nourished by the use of the entire grain. He remarked that the constitution could often be braced up, till the structure of the teeth so improved that they could better resist disease. He remarked, that not only the character of the constitution, but even the state of the health could be ascertained by careful inspection of the teeth.

Dr. ROEERS of Cincinnati, regarded this as a most important question, and said that whatever is done, practically to secure good teeth, must be accomplished in early life. Decay of the teeth resulted from defective enamel, or from vitiated fluids. As the enamel is all-important, our attention should be enlisted during the period of its formation; for it is not changed much after it is formed. The deleterious influence of malaria here, he observed, was similar to its influence in Germany, as described by Dr. Rehwinkle. What can be done to counteract the influence of malaria, he regarded as an important question.

Dr. MURRAY thought it was important to avoid mechanical injuries to the teeth. Even in early life, he said, the dental organs are used as a substitute for hammers, vices, pincers, etc. He said he was alarmed to hear that Irish teeth were bad. Being once in that country, and standing in need of teeth, he secured a deciduous set, as an experiment, which lasted him a few years. Being about to leave, and being told that the teeth furnished in that country were good, he secured a *second* set, which had lasted him till the present time. He thought, that by avoiding mechanical injury, and by cleanliness, even Irish teeth would last a good while.

Dr. DECAMP remarked, that the question seems to have as many horn's as Daniel's goat. An important step would be to make every mother a physiologist. The teeth, he said, are mainly developed before we have anything to do with them. It is important, he thought, to modify and improve public opinion. To

carry out every process successfully, nature must have the material to work on, the tools to work with, and the ability to accomplish the work undertaken. It is our duty to inform the public on this matter ; and if physicians will co-operate with, future generations will bless us.

Dr. McKELLOP said, that the good teeth of foreigners, seemed to be a favorite topic. He thought there was probably less difference between the dental organs of the old world and the new, than was generally supposed. In Europe, dentists are not so generally distributed as here ; and, consequently, the teeth are not so closely observed. If chemistry causes the decay of the teeth, he thought it could also furnish a remedy. Why not, said he, have a chemical wash ? He wished to know when gentlemen consider it proper to fill deciduous teeth ? He inquired if there was not danger of injuring the permanent organ.

Dr. DUNHAM said, this subject belonged more appropriately to the journals, than to a popular meeting. He said most diseases are hereditary, and were less dependant on local causes, than was generally supposed. His own teeth, he said, are good, though he is a dyspeptic. His brothers and sisters have bad teeth, though they are healthy.

Dr. WRIGHT said, that to secure a healthy permanent denture, it was necessary to retain the deciduous teeth as long as possible. He would fill them when practicable. The objection to premature extraction is, that the jaw contracts ; yet, if a deciduous tooth be so diseased as to affect the constitution, he would remove it.

Dr. ALLEN said we must be careful to avoid extremes. He was in favor of saving the temporary teeth by filling, when it can be done ; but there was danger of injury to the permanent organs, by undue pressure. He had met such results in his own practice.

Dr. TAFT said, the remark had been made, that it was proper to retain the deciduous teeth *as long as possible*. When they are not shed at the proper time, making due allowance for constitutional differences, and if the permanent teeth do not follow them directly, he would remove them. They should be retained till the right time; and should not be permitted to become deceased. However, it was often necessary to remove them. When decayed, and he thinks it practicable, he fills them. The pressure *need* be no greater, he thought, than in mastication. Within a year or eighteen months of the period of shedding, he would not consider it proper to fill them; but, three or four years previous to shedding, the attachment is so firm that the pressure need not be dangerous. He considered it a very delicate matter to destroy the deciduous pulp. The parts around a tooth were less likely to remain healthy after the death of the pulp, especially around deciduous teeth. It was important to discriminate. In some constitutions he would not attempt the operation. Indeed, he would only occasionally destroy a dangerous pulp.

## II. *The best means of preserving the teeth.*

Dr. WATT said, that good teeth being "secured," the danger to them arises from the presence of substances capable of acting chemically upon them.—These substances are to be found among the acids. It is true that mechanical injuries, and other causes, do very much facilitate the action of these agents; yet fracture of the enamel would be a thing of small moments, were none of these agents brought in contact with the tooth. The time was coming, and he believed it was nearly here, when the intelligent dentist would be able to tell precisely what agent produced any given case of decay. When this attainment is made, we can treat the mouth in a rational manner. It was evident, he thought, that many acids, capable of acting on the teeth, have no direct influence in pro-

ducing dental delay. It was not the brief, accidental presence of acids in the mouth that causes decay, as we ordinarily see it, but the slow and prolonged action of those agents, in a diluted state. Those acids which produce dental decay, he thought, were brought in contact with the teeth by *secretion*, as when the functions of a secreting organ are depraved,—by *excretion*, as when the elements which compose them are in excess in the system,—by *fermentation* or *putrefaction*, as when particles of food are left to decompose in the mouth. All the four recognized varieties of dental caries can be produced, or at least imitated, artificially, by the use of acids. For example, “white decay” may be readily produced by nitric acid; and as yet he knew of nothing else capable of producing it. If a portion of muscular fibre be left to putrify, between the teeth, ammonia is invariably formed; but, in the presence of ammonia and atmospheric air, nitric acid is always formed. White decay on approximal surfaces, was thus easily accounted for. Now, constant attention to cleanliness, would remove the particles of food, and also the secreted and excreted acids; but something more, he said, was desirable. It would be well to prevent the formation of the acids. He illustrated this point by allusion to a little dog, chasing away the locomotive. His watchfulness was thus far successful, as it had done no damage; but if the little fellow could tear up the track and thus prevent its coming, the course would be more philosophical and satisfactory. (The President, by courtesy, or *oversight*, indulged Dr. W. far beyond the allotted ten minutes.—REP.)

Dr. BERRY stated that he had been informed, on good authority, that the Japanese have usually good teeth. He exhibited a tooth powder used by that people, which he said, might be interesting to the curious. A powder, similar in appearance and physical properties, might be made from prepared chalk, pumice stone and rose red.

Dr. VAN EMON inquired of Dr. Watt, what influence galvanism had on the destruction of the teeth.

Dr. WATT said, it had no *direct* influence. It could only act on the teeth, by forming or eliminating compounds, capable of exerting an influence on them.

Dr. TAFT said, that to preserve good teeth, the secretions of the mouth should be kept normal. If they become abnormal, it was important to know how to change them. To remain healthy, a tooth must be exercised. A tooth without an antagonist, we all knew, was likely to become unhealthy. The use of hard, firm food, has a tendency to preserve the teeth. Dogs, he said, have no tartar on their teeth. The character of the food is not sufficiently cared for. The state of the buccal secretions, he said had much to do with the question of cleanliness. They were sometimes so adhesive, that they attached themselves to the teeth with considerable tenacity, and were not removed except by careful brushing.

Dr. STONE, requested Dr. Taylor to give his views of the use of sugar, salts, candies, etc.

Dr. TAYLOR said, he did not consider candy very good diet. Corn bread, he thought, was undoubtedly, better. Sugar, he thought, had no bad effect on the teeth—was a useful article of food.

### III. *The treatment of exposed nerves.*

#### SECOND DAY—AFTERNOON SESSION.

Dr. ATKINSON said, that when the nerve was accidentally exposed in operating, he applied cresote on a pledget of cotton, and pressed it, with a blunt smooth instrument, on the exposed part, continuing the pressure, in many instances, for a minute or two. He then placed a thin horn cap over the exposed part, pressed it to its place with cotton on a blunt instrument,—the pressure of the atmosphere would hold it in its position. Then he would fill the cavity as usual.

If the pulp was exposed when the patient first came, but not inflamed, he would pursue the same course. If inflamed, he would, if practicable, reduce the inflammation, and proceed as before. Many substances, he said, would do for caps as well as horn, but this was so easily prepared, that he preferred it. By pounding, or hammering the horn, it is divided into thin lamina, very convenient for use. Under this treatment, he said, the nerve would often be protected by a deposit of cementum. He referred to a case of exposed nerve, in which the tooth was filled, February 23d, and on the 22d of March following, the filling was removed to ascertain the condition of the tooth. The nerve was covered by cementum.

Dr. BRANCH said, that he filled such cases without applying creosote, or any thing else. He had seen inflammation result from the use of creosote.

Dr. ASAY feared he was behind the age. Three-fourths of the cases he capped, failed in less than six months. They generally inflamed. His usual practice was to destroy the nerve, and fill the fangs.

Dr. TEFFT said, that his method was, to destroy the nerve with arsenic, tannin, and creosote, and he did not fail more than one time in fifty.

Dr. WRIGHT said, that when there is slight exposure, he touches the exposed point with nitric acid, and filled without capping, and in fifteen years had not lost a case. The nitric acid, he said, blackens the tooth. He had not been very successful in taking out nerves.

Dr. W. B. INGERSOLL reported a case in which he performed what was, at the time, known as the "Hullihen operation." The tooth was a lateral incisor, with exposed nerve. The operation was performed five years ago, and the tooth is still healthy.—He had failed in other cases. He tried capping, but didn't like it. He now removes the nerve, unless the tooth can be filled without capping.

Dr. STONE said, his practice was to remove as much of the decay as he could, without causing severe pain, and then extirpate. He had quit capping, as he could not get teeth, treated in this way, to last over two years. He removes the nerve with an instrument, wipes out the blood, and fills in a few minutes.

Dr. PERINE said, he once extirpated all nerves, but, on receiving suggestions from Dr. Atkinson, he had changed his mode. He thought it important to preserve the vitality of the tooth.

Dr. JOHNSON, of Indianapolis, said he applied chloride of zinc directly to the exposed nerve, repeating the application if necessary. The pain was severe.—Its application, he thought, was more successful with young patients than with old. He had used the chloride in this way for two years, and had seen no discoloration of the teeth.

Dr. FULLER said, he could not get along without the chloride of zinc. It is a good antiseptic, as well as escharotic. He thought it important to fill the nerve cavity. He destroyed nerves with escharotics. He formerly used arsenic and morphine,—now he omits the morphine, and finds that less pain is caused by the escharotic action. He now uses chloride of zinc, instead of creosote. In using the latter, the nerve sometimes dies, and the tooth becomes discolored.

Dr. DUNHAM said, he had capped and failed; and he had succeeded with various caps. The tooth could often be saved, after the nerve is destroyed, without filling the canal; but he usually fills it. Plaster of Paris, he thought, formed the best cap.

Dr. ALLPORT said, he was not very successful in treating exposed nerves. If it was inflamed, he cut it out; if not, he tried to save it. He uses arsenic occasionally.

Dr. ROGERS of Utica, thought, that if a nerve was seriously wounded, it would certainly die.

Dr. REHWINKLE thought, when a nerve was exposed,

its case was almost hopeless; if suppuration had begun, it was entirely so. If inflamed, and but lately exposed, he would use astringents instead of escharotics, and insert a temporary filling. He reported successful cases treated in this way. He said (to Dr. Atkinson) that osteo-dentine is sometimes formed under such circumstances.

Dr. BRANCH said, that when it was necessary to extirpate the nerve, he would apply cold water, then ice-water, then a freezing mixture, and remove the nerve with an instrument. He uses no morphine in arsenical mixtures for destroying the nerves, and the result is, there is no pain. He uses a bristle instead of a broach. In the use of caps, he succeeds in three out of four cases. He had seen exposed nerves protected by a deposit of cementum.

Dr. WRIGHT reported a case in which the pulp of a molar was wounded and bled profusely. The tooth was filled with tin, a pledget of cotton being left in the cavity. Twenty-four years afterward, he removed the filling, the cotton was in a good state of preservation, osteo-dentine was deposited over the nerve, and the tooth was sensitive, and evidently alive. He refilled it successfully.

Dr. ROGERS of Utica, said, he would prefer to believe that Dr. W. had been misinformed respecting the condition of the tooth at the time it was filled. He would not say that the nerve always died in such cases, but he believed it did.

Dr. BERRY said, that if he wounded the nerve, he expected it to die. He thought, however, he had seen one successful case in his practice. He extirpates the nerve with an instrument, and said that in the South they had the *nerve* to stand it.

Dr. PALMER said, that the pulp may be exposed at minute points, and the operator not be aware of it; and if a little blood be left in the cavity, suppuration, and consequent pressure, would result. In such cases

he applied creosote, with a burnisher, over the entire surface. If the exposure be considerable, he would moisten a pledget of cotton with creosote, and press it firmly in the cavity, for some time, then fill up tightly with cotton awhile, and afterward fill with gold, without a cap. When the nerve is extirpated, he fills the fangs. If the nerve is freely exposed, he applies a muslin cap moistened with creosote and fills over it. He is opposed to the use of arsenic, though, he said, he was among the first to use it. He thought morphine combined with it, increases the pain. He now uses cobalt, which is milder.

Dr. ROBERTS said, he removes the nerve, when practicable, with an instrument. The operation is not as severe as patients expect it to be. When a front tooth is aching, and the nerve is exposed, he removes it with an instrument, to relieve the tooth-ache, and then fills immediately. The experiment of saving exposed nerves he thought well worth a trial.

Dr. TAYLOR said, his practice was somewhat modified. He was in the habit of capping, more or less. He discriminated more carefully than formerly, but was in favor of capping in appropriate cases. He said it was important to know whether the decay reaches the pulp or not, before we cut down to it. If the tooth is sensitive around the border of the cavity, the nerve, he said, is not exposed. If a nerve was wounded, he formerly destroyed it; but he began to inquire why a wound of the pulp membrane should give more difficulty than cutting off the nerve and vessels in the canal. Reasoning on this, he began to cap and fill, even if the pulp were wounded, and was usually successful in favorable constitutions. If the constitution were bad, and the mouth diseased, he would not try it. He does not use morphine and arsenic to destroy nerves—uses creosote and cobalt. He inquired what should be done with a nerve that arsenic would not kill.

Dr. CHASE used cresote and arsenic, applying a lead cap over it, to prevent pressure on the nerve. The result was, no pain from the action of the arsenic.

Dr. ALLEN said, he used creosote and arsenic, and there was no pain, unless it was caused by pressure.

Dr. OSMOND said, if the pulp be wounded, there will be hemorrhage and effusion of lymph, and in good constitutions, a deposit of osteo-dentine. In scrofulous cases, he recommended the use of hypo-phosphate of soda and lime, to promote the formation of this deposit. His favorite cap was prepared by folding foil to the proper thickness, and varnishing it with gutta percha dissolved in chloroform.

Dr. ULREY inquired, if those who use arsenic ever witness bad effects from it. He thought it important to report the failures and mishaps, as well as the successes.—*To be continued in our next.*—EDS.

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*Continued from our last.*

## MINUTES AND DISCUSSIONS OF THE NEW YORK DENTAL ASSOCIATION.

Dr. Hawes asked how he removed the nerve when the cavity was smaller than the brouch used, as was sometimes the case.

Dr. Perine replied, in cases where it was impossible to extirpate the nerves with the brouch, he enlarged the nerve cavities, but preferred the natural shape of the canal. There were cases, however, in his practice, when he found it almost impossible to remove it entirely.

Dr. Covell remarked, that he had not practiced to

much extent the extirpation of the pulp and filling of the roots of teeth—preferred saving the vitality of the nerve—had been successful in capping the nerve and filling sensitive teeth by a cover of finely pulverized charcoal. He referred to cases in which he had filled teeth in this manner, a number of years since—had seen them quite recently—found them in a healthy condition, and had been free from pain.

Dr. Perine asked if he had noticed any discoloration in the teeth from coal.

Dr. Covell replied he had not—the coal was very finely pulverized and placed in the bottom of the cavity. Got the hint from one of the profession in Philadelphia, a number of years ago.

Dr. Roberts remarked, in using a substance as a nonconductor, would recommend horn or bone.

Dr. Keys thought it highly important, in preparing the nerve cavity for filling, that the entire portion of the pulp be removed, to preserve the health of the tooth. He believes that no ossification can take place without inflammation—thinks it does not depend so much upon the perfect filling of the root as to prevent the inflammatory action.

Dr. McIllroy asked why it was that aged persons' teeth ossified without ulceration.

Dr. Keys replied, that the inflammation did not go so far as to produce ulceration.

Dr. McIllroy said he would like to hear from Dr. Lovejoy who had a large experience in the treatment and filling of roots.

Dr. Lovejoy does not profess to have had so large an experience as some others. He did hope to hear more upon the treatment of abscess. His practice is to probe the internal membrane and the sack, if possible, remove the matter—uses creosote, nitrate silver—leeches gums freely. After bringing about a healthy action, fills the roots—avoids pressing air or moisture in advance of the filling.

Dr. Putnam said he had retired from the labors of the operative department, and was glad he had done so, but he would say a few words. Has never practiced root filling. Spoke of filling the apex and leaving the canal open, and completes the operation by plugging the crown cavity. Treats abscess with creosote. Thinks much of the practice of drilling the root as recommended by the late Dr. H. and others. If the cavity of the tooth thus treated be kept open there is no trouble. Has a tooth treated thus in his own mouth. Has been successful in this mode of treatment.

Dr. Roberts said, there were many theories advanced in the practice of dentistry, and it was of vital importance to patients that correct conclusions should be arrived at. He, therefore, thought Dr. Putnam's mode a bad one, and had a tendency to mislead young dentists. He had practiced this to some extent, but had abandoned it; he could see no necessity for drilling the tooth and leaving an opening to be constantly discharging, when a filling could be removed and the root properly treated and cured permanently. He said there were three important facts to be kept in mind in the filling of badly decayed teeth: 1st, always preserve the nerve alive if possible; 2d; when impossible, it should be removed and the tooth filled to the apex of the root. He had no hesitation in saying, that nine cases in ten could be saved; 3d, when the disease had progressed to ulceration, then proper remedies should be applied, and tooth filled as before spoken of. He decidedly objected to the wholesale extracting of teeth when the nerves are exposed or abscesses formed.

Dr. Clark said he was glad to hear the old practice once more spoken of. There was a time he practiced it, but it was to give immediate relief. Thinks if a nerve can be covered it would be better. Would caution younger members of the profession to be careful about the destruction of nerves. His method of fil-

ling nerve cavities is to roll the gold foil in the form of a pin and carry it to the apex with a small instrument for the purpose. Was careful not to force air in advance of the plug. He loses no more than one in ten after the filling of the roots.

Dr. Perine remarked, he had never resorted very extensively to the drilling the roots of teeth. Thinks in such cases, after treatment, the root should be filled.

Dr. McIlroy said he had been much gratified with the discussion of the evening; he hoped hereafter to hear more on the pathology of the teeth.

The time having expired allotted for the discussion, the committee presented the subject for discussion at the next meeting, when, on motion, adjourned to meet two weeks from this evening.

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## EDITORIALS AND CUTTINGS.

### WESTERN DENTAL SOCIETY.

We would, if space permitted, give the proceedings in full, of the Annual Meeting of the *Western Dental Society*, held in Quincy, Ill., July 20th and 21st.

The following were elected officers for the ensuing year :

Dr. W. W. ALLPORT, of Chicago, Ill., *President*,

“ J. B. BRANCH, Galena, Ill., 1st *Vice-President*,

“ W. H. ANDERSON, of Hannibal, Mo., 2d *Vice-President*,

“ J. FORBES, of St. Louis, Mo., *Recording Secretary*,

“ H. E. PEEBLES, of St. Louis, Mo., *Corresponding Secretary*,

“ A. BLAKE, of St. Louis, Mo., *Treasurer*.

*Examining Committee*.—Drs. SPALDING, McKELLOPS, FORBES, PRIEST and HUBBARD.

The discussions were participated in by all the members present, and were interesting and instructive. The session, through-

out, was characterized by harmony and good feeling. We regret not being present during the early part of the session ; but happily arrived before the animated and interesting discussions of the first session terminated.

The Society adjourned to meet in Milwaukie, Wis., on the first Tuesday in July, 1859. The fine banquet given by the profession of Quincy and vicinity, came off at Lomelino's Hall, on Wednesday evening. The members present, with a few invited guests, with fine sets of teeth, brought them into exercise with the knife and fork. Such a display we have seldom witnessed. All appeared to be good feeders, and did justice to the choice things set before them ; while a display of long-necked bottles, charmed those who felt *Spiritually* inclined.

After picking his teeth, the President opened the ball with a short address. Spirited and interesting speeches followed from Drs. BRANCH, LEWIS, PERINE, HUBBARD, McKELLOPS, BARRON, ANDREWS and others. The toasts were unusually pointed and piquant.

Dr. J. FORBES, the Ex-President, gave the following sentiment : " May the spirit which animated the early promoters of Dental Literature, the parent of a liberal and free American Dental Education, and unselfish interchange of thought, find in the young men of the profession, temples fit to dwell in."

A call was made for PEEBLES, who arose, and made a fine speech, (which, if space permitted, we would publish in full ; it may be seen in the *American Dental Review*.) The banquet passed off most happily to all, and will long be remembered by those who shared in this the " feast of reason, and the flow of soul."

Owing to press of matter, we are obliged to omit our Historical and Biographical Articles in the present number, but will continue them in our next.—Eds.

We request that our subscribers will remit the amount of their subscriptions at their earliest opportunity, and thus evince their desire to support an independent Journal. We beg to return thanks to our exchanges for their courtesies, and will be happy to exchange with any periodicals that desire it. We hope to make the "*Dental Journal*" equal in value to any published.—Eds.

## THE LATE WESTERN CONVENTIONS.

Desiring to note the progress of Dental Science, and of our profession from time to time, we took it upon ourselves, though at considerable expense of time and money, to visit our Western friends at the late Conventions held at Quincy, Ills., and Cincinnati, Ohio. To prove that we have returned amply repaid we have only to refer our readers to the reports of the proceedings at those Conventions, and hoping they will give us credit for the requisite good taste, we are satisfied to leave our opinions in their hands, feeling certain they will do us justice. We cannot, however, let the opportunity pass without a word of thanks for the many courtesies that were bestowed upon us, and a cordial hope that we shall some time be enabled to reciprocate in our own city. Our western friends, proved to us that they can do, what Macbeth's physician could *not* do,—they can "*Minister to a mind diseased*,"—as the many pleasant reminiscences we bring back of their fostering care of our little peculiarities and habits assure us. Our friend HUNTER may rest satisfied that our appreciation of his worth will not end in *smoke*, nor will our own protestations of friendship prove a *mere sham*. To HALE, of St. Louis, we would only say that though forced by adverse fate to give *leg-bail*, it is with the greatest satisfaction that we reflect on the memento of himself which we brought with us.

We also beg STODDARD, of New London, to believe that his beautiful gift will ever prove an *instrument* to *fill* our souls with gratitude when we remember the giver; and though we never chew, we hope its silver sides may glisten over many a *plug*.—Eds.

FROM late correspondence with Prof. Westcott of Syracuse, we learn that he has in preparation a work upon the effects of nearly two hundred substances, forming component parts of food, condiments, medicines, &c., upon the teeth; being the results of various experiments made by him in 1843. Such a work cannot fail to be of great value as well as interest to the profession.—Eds.

### PERINE'S PIVOT SPLITTING FORCEPS.

The following cut is a representation of a forceps designed for splitting pivots, in order to secure the backing to the tooth or block in artificial work. It is intended for the use of those who remove the tooth or block from the plaster before backing, a method offering many advantages over the old system of backing while in plaster.



Letter A in the cut represents a small gutta-percha pad, upon which the tooth or block is laid, and which protects it from injury.

Letter B is the base of the forceps in the form of a V, which splits the pivot into halves, securing the backing to the tooth. The form of the blade can however be varied at pleasure to split the pivot into two or three parts.

NOTE. We are indebted to Dr. Eccleston of Oxford, N. Y. for the cut, the instruments are made by John Biddle of this city.

We beg to state that the above instrument *is not patented*.

### NEW YORK DENTAL ASSOCIATION.

In our first number we took occasion to mention the steps taken last year by the New York profession to establish a local society. We beg to present the matter again before the profession, and to urge them to some action in the premises during the coming season. By a proper method and due energy on the part of the gentlemen themselves, an association might readily be established here whose influence should be felt even to the far west. There are many matters of interest which need only discussion to cause them to find a level where they may be made useful to all. Will not the profession of New York at once call a prelim-

inary meeting and lay the foundation for a corporate body in this city? There is talent lying latent among us which needs only some such opportunity to induce it to spring forth illuminating every topic. Do not then remain inactive longer! but one and all come forward, and spurring each other on, it will soon be seen that New York cannot fall behind other cities in our profession, when she is so far in advance in every thing else.—Eds

### QUARTZ FILLING.

"*Somebody*" is doubtless much obliged to our friend of the "*American Dental Review*," for his kindly caution. The sad accident cited should certainly be entitled, "The pursuit of *Quartz* under difficulties," at all events the unfortunate had to *pint* up. There is an old proverb, "too much of a good thing is good for nothing;" had our auriferous friend from El Dorado, rested satisfied with filling his *teeth* with the treacherous fluid, and not his *stomach*, he would still be living to head the band who will at some future time bear witness to the efficacy of '*Quartz Filling*.' *Requiescat in stone-e*.—Eds.

GOLD FOIL.—We have recently been using gold foil, manufactured by Mr. John Kearsing; it is adhesive and soft, and works as well as any other foil we have used.

The profession up town will be pleased to know he has opened a branch depot, corner Broadway and Twelfth street.

WE are happy to see our Indiana friends taking so laudable a start in the matter of Conventions, we hope we shall not be far behind them; we give below their call for a State Convention at Indianapolis, Dec. 28 prox.—Eds.

### INDIANA STATE DENTAL CONVENTION.

A meeting of the Dentists of the City of Indianapolis, was held Aug., 1st, 1858. Dr. J. F. Johnston was made Chairman, and Dr. G. C. North, Secretary. It was Resolved,

That the Dentists of the State generally be invited to attend a Dental Convention, to be held in this City on the 28th day of December next, for the purpose of forming a State Dental Convention.

A Circular of invitation will be sent to all practising Dentists

whose names and residences can be ascertained. All other competent practitioners are cordially invited and earnestly solicited to attend

WE have received the following works but space will not permit of more than mention; we shall notice in our next.—Eds.

American Journal of Dental Science.

The Dental News Letter.

The Dental Register of the West.

The Dental Reporter.

The American Dental Recorder.

The College Journal of *Medical Science*.

The Dental Enterprise, Three numbers.

## CHEAP ADVERTISING DENTISTS.

### EXTRAORDINARY VERDICT.

Nostrum venders with their empirical recipes of universal prescription, ushered into the world as they are by flashing papers, and many colored handbills, with counterfeit recommendations, followed though they be by the dead march to the graves with the groans of tortured thousands, are of the same grade with the class of practitioners above referred to. They are generally rejected *attaches* to the profession of medicine, whose slow and honorable industry lags too much on the road to fortune, to suit their abandoned rapacity for gold. Forcing themselves into its ranks by the use of such means as forcibly expels them, they rush into our miscellaneous world and belabor their willing victims, with millions of compound and simple pills, and wash them away in the tide of tonics and elixirs, which often, nay constantly, drench every community. And the chief virtue is that they cure all for only two shillings.

The cheap advertising dentist does the same in a different way. He is often found driven from a more fitting employment in the capacity of a country blacksmith, or in the employment of some useful but less skillful of the mechanic arts, by sheer indolence and incapability, or more frequently by the inducement of an old sinner, who promises in the short space of thirty days, to qualify him for the practice of dental surgery, in all its branches.

Thus we have those who migrate from the pocket of one community, to that of another, depending only upon the *furor* they create, by flaming advertisements of cheap dentistry, being wholly and naturally incapacitated, even to approximation, to any qualification to practice.

Such we suppose to be the position held by the plaintiff, in the following singular and unjust suit: the verdict against the defendant is no less strange than deplorable.

From our European budget, it appears that a widow lady, had been attracted by the flaming advertisement of a dentist, who occasionally visited the place of her residence, and many other adjoining villages. In his advertisement, every possible success was promised with the most complete satisfaction to patients. After several visits, she arranged to have a set of teeth inserted, and in due time they were completed and placed in the mouth. Upon her return home she found all her hopes annihilated, the operation being a complete failure. Of course she again visited the person, who, upon examination, admitted the want of adaptation; accordingly a second set were made with a view of correcting the faults of the first. The second set however proved to be also a failure, with increased defects in construction. The price charged was twenty-five guineas for each set, which sums the defendant refusing to pay, the plaintiff brought an action for recovery of these amounts. In the course of trial, several dentists gave evidence *pro* and *con*. But a Mr. Rogers, as also a Mr. Hackley, both practitioners of eminence, pronounced a severe and entire condemnation on the pieces. The jury, notwithstanding, brought in a verdict of damages against the defendant for the full amount of both sets.—*American Journal*.

The following we copy from a circular of a wag of a tooth-puller at Bloomington.

BENEVOLENT INSTITUTION.—Dr. P.—dentist having once more opened an office in Bloomington, will perform all operations on the teeth at greatly reduced prices.

A beautiful silver cup will be presented to the person having the greatest number of teeth extracted—and a splendid gold watch and charms will be awarded to the one having the first set of artificial teeth inserted.

Teeth extracted for a dollar a dozen.





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